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Communicative Competence in Kindergarten

by

Helen G. Ilott

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A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

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Abstract

The question "What constitutes communicative competence in kindergarten?" was investigated in one kindergarten class using three contrasting perspectives and resultant methodologies. The first perspective was based on Vygotsky's descriptions of the zone of proximal development and the sociogenesis of thought and language, which were represented by adult-child tutoring. The second, viewed as the status quo, included standardized measurement. The third had its origins in theories of interpersonal and social judgment and involved the use of reconstructive ethnography with the teacher as the informant.

The sequence of investigation proceeded from etic to emic to etic, resulting in a series of concluding statements expressing relationships across the three perspectives. Outstanding among the conclusions was the preeminence of activity and social interaction in judgments of communicative competence. Other concluding statements clustered under three headings: 1) competence is judged relative to the context: the information it provides and the goals it implies, 2) competence is inferred from performance, and 3) the process of inter-personal judgment contributes to the resultant appraisal of competence. These clusters of statements were developed into a culminating definition.

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Foreword

The question addressed in this dissertation had its origins in the "real world". The researcher once spent two years administering standardized assessment procedures to hundreds of kindergarten children. During this period the evidence she obtained exceeded what Feldman described as an individual "threshold of discrepancy". For some children the test scores contrasted to the subjective opinions shared by the examiner and experienced kindergarten teachers regarding the child's language ability.

Subjective impressions have long been acknowledged under the rubric "professional judgment", but in this context it seemed that judgment so consistently shared, might also be objectifiable. This conviction, augmented by years, courses, conversations, and theoretical considerations led to this research. The roots of the question are presented by the standardized test component in the research itself. The rest is the pursuit of answers promised.

The completion of this study concludes this quest -- and starts others.

CHAPTER ONE: Introduction

Summary of the Topic

Background Information

In the last twenty years a critical explosion of information has occurred in the study of child language. During this period general disciplines and specific researchers have selected different manifestations of the global area of language upon which to concentrate, foregrounding specific areas or models for their attention. Aspects of structural linguistics such as morphology and syntax received particular scrutiny, and, as a result, researchers have been quite successful in describing with increasing specificity the normal pattern of oral language development among children.

Amid this expanding amount of evidence on child language, it has become evident that the specification of language skills has not achieved a description of the fusion of thought and language necessary for communicative competence. Hymes (1980) details the frustrations of this search:

> When the course of modern linguistics reached syntax (having started out ... with a focus on phonology), and when controversy over models of syntax were resolved effectively in favor of transformational-generative grammar, begot by Chomsky out of Harris, it seemed to some psycholinguists that almost a millennium was at hand ... Experiments based on the Chomskian model gave initially exciting results. It seemed that the grammatical model and psychological reality were twins, and the job of psychology was to devise ingenious experiments on the basis of the linguistic model. A few years later the bloom was off that particular rose. The relation between psychological reality (the mechanisms of the mind) and grammatical theory (the mechanisms of a mode of grammar) came to seem increasingly remote. (p. 66)

With the advent of the "pragmatic revolution", (Lund & Duchan, 1983) the focus of study broadened to include the perceptions of the listener and the entire interactive context. This broadening of scope made relevant the new research area of developmental kinesics (Hoffer & St. Clair, 1981; Prutting, 1982) as well as the focus by sociolinguists on the language of the school (Cicourel, 1972). However, some have suggested that the models themselves are in error and that a redefinition of these models is in order. Representatives from various areas of language research (Bain, 1983; Butler, 1984; Cazden, 1983; Mehan, 1982) have expressed the need for more complete approaches. John-Steiner and Tatter (1983) have recommended the coalescence of the strands of nature and culture in an interactionist model.

This study was designed in response to the need to understand the nature of competence, the need for a viewpoint which subsumes discrete segments of information regarding child language. Its purpose was to identify a trans-molecular perspective to allow the exploration of dynamic relationships that cross the many areas of language study. The contention of this study is that, for reasons of discipline-based perspectives and of intellectual history, the boundaries which divide research domains have been made by "blinkered" researchers themselves. They are artifacts of their history not boundaries that occur in the lived world of the person. Consequently, the difficulties in defining communicative competence might stem from a preoccupation with specific molecular units of language and a limited consideration of the more unifying perspective, the dynamic use of language in a social context. When language is viewed as it occurs in individual children, the "truths" of language development may transcend the boundaries of prevalent theories and methodologies. As Hymes (1980) explained, "It is the start from a 'higher' level, the organization of language in terms of interaction among persons, that brings the other features into view and finds them essential parts of what language is and does" (p. viii).

This need for a renewed vision regarding the study of child language was summarized by Bain (1983) "Social science has now, I believe, reached a level of theoretical sophistication where a genuine integrative approach is possible, as least vis-a-vis language" (xxi).

Language as Content and Context of Schooling

Within the many perspectives taken toward the complex topic of language, an important issue is the relationship between the language of the children who enter school and the curriculum expectations and instructional models of the schools themselves (Cazden, John & Hymes, 1972). Cazden described the special problem of the language-learning relationship as follows: "language poses multiple problems for education because it is both curriculum content and learning environment, both the object of knowledge and a medium through which other knowledge is acquired" (p. 135 cited in Bashir, Kuban, Kleinman & Scavuzzo, 1983).

At school entry these problems have particular significance. The child, in a sense, is already an accomplished language learner. Many communicative styles and nuances in the language of his/her experience are acquired early in life. As "spontaneous apprentices" (Miller, 1972) children enter the classroom and begin to learn the "language of school". These language patterns of school have been shown to include unique characteristics (Mehan, 1979a; Novik & Waters, 1977) which may not resemble the language in the child's pre-school experience. Thus, the relationship between each child as a language learner and the demands of the school context have special importance. Although this issue has received extensive attention, there is little coherent evidence that addresses the question of "what constitutes communicative competence in the children's first experience with the institution of school, kindergarten?"

The Question of Competence

At school entry many variations of communicative ability and communicative styles become evident from the children enrolled in a single kindergarten class. People -- teachers and children -- make judgments regarding the language competence of their associates in the normal course of classroom events. A generalizable, pedagogical definition of this competence, however, has been elusive. The research project reported here has been an effort in achieving that desired heuristic.

The question of the nature of competence is not an idle question; its implications are real and potentially life-changing. In the classroom, the teacher is the "gatekeeper". A child's access to play areas, expanded information, and verbal expression are at the teacher's discretion. Children are promoted to grade one, assessed for special education, or considered for enrichment programs on the basis of the teacher's judgment. The competent teacher perceives this societally-granted power as a responsibility, a charge to "control the gates" to facilitate learning in children.

Facilitating learning in children depends to a great extent on what the teacher can identify about each child as a learner. In kindergarten one of the most important characteristics of children is their verbal language, the foundation of social interaction, the precursor and covariant of literacy. Thus kindergarten teachers make judgments about children's levels of competence in communication. The judgment the teacher makes influences the "gates" that are opened for the child.

Source of a New Model

The fact that teachers form judgments regarding a child's communicative competence suggests a contrast to the opening of this chapter, decrying the need for a more adequate model. In schools the on-line person who requires a way to assess the communicative competence of children, seems to have evolved a process for doing so, an implied strategy, a subjective style, a personal perspective. By making the implicit explicit, by making the subjective objective, by making the personal interpersonal, the needed model of language may begin.

Toward a Unifying Perspective

Adult-child Tutoring. To provide a definition of communicative competence that transcends the narrowing influence of any specific perspective, diverse evidence gathering strategies reflecting different conceptual bases became a prime requirement. For this study, three contrasting perspectives were identified as promising sources from which to derive an integrated definition of communicative competence that corresponds to language-in-school evidence. The first of these sources was the emphasis on the sociogenesis of language and thought as represented by adult-child tutoring. The way in which children learn under the tutelage of an adult is an important part of school, and an important force in a child's development. For these reasons an adult-child tutoring activity was seen as a promising contributor to the answers sought.

Standardized Measurement Procedures. In the present school systems, as noted in the Foreword, professionals administer standardized tests and language analysis procedures to hundreds of kindergarten children. These are competent professionals who employ strategies that abound in professional literature, and who continue using these methods amid institutions which frequently reject unsatisfactory procedures. To make the definition from this research relevant to the real world that spawned the question and applicable to the real world that might benefit from the findings, the status quo, standardized measurement, was a necessary component for this study.

Teacher Judgment. In the discussion of the importance of this question, it was suggested that many teachers seem to have developed an on-line process that allows them to make the judgments, perhaps at an implied, subjective level, that elude theoreticians. To explore this possibility, this study actively involved a teacher who might "know", one who combined the sophistication of theoretical knowledge with the subjective judgment and practical strategies that come from many years of experience in the specific context.

Three Approaches from Diverse Theories. These three approaches - tutoring, testing and interviewing the teacher - actually include emphases from such diverse theoretical areas as social interaction, cognitive development, normative scales of performance, analysis of linguistic components of morphology and syntax, and conceptual processes of interpersonal judgment. Although these do not encompass all possible areas, they do provide a diversity that promises a trans-molecular statement bridging several existing approaches to language study.

The Procedural Approaches

Conceptual Bases and Methodological Sequences

It is from these conceptual bases that this study has been designed to include both quantitative and qualitative measures. It is understood, of course, that all measures must be accountable to basic tenets of scientific inquiry, but each approach contributes a different methodology. To integrate the evidence provided by these methodologies, this dissertation will be presented in an etic to emic to etic sequence. These terms, etic and emic, refer to levels of analysis described by Kenneth Pike (1967):

> The principal differences between the etic and emic approaches to language and culture [lies in the difference between]. ... Units available in advance, versus [units] determined during analysis: Etic units and classifications, based on prior broad sampling or surveys ... may be available before one begins the analysis of a further particular language or culture ... emic units of a language must be determined during the analysis of that language; they must be discovered, not

> predicted. ... Hence, etic data provide access into the system the starting point of analysis. They give tentative results, tentative units. The final analysis or presentation, however, would be in emic units. (pp. 37-38)

This etic to emic to etic sequence as an approach to language research has been expressed succinctly by Lois Bloom (1978):

> The goal of linguistic and cultural analysis is an account of the regularities in the organization of behavior. To that end, one would begin with an etic scheme or tentative set of hypotheses that might have originated from one's observations and ideas (or some a priori classification), and then proceed to test the hypotheses with the data until one arrives at an inductive emic analysis that identifies the relevant variables and their interactions. Such analysis involves successive hypothesis testing with the interactive process of division, classification, and evaluation and then redivision, reclassification, and reevaluation until a reasonable account is obtained. (p. 3)

Etic to Emic to Etic. This statement by Bloom also pertains to the format of the following presentation. Chapter One and Two detail the initial etic stage of the research, the identification of the research question and the description of a priori classifications or conceptual bases chosen from experience and relevant literature. The research procedures resulted logically from the initial perspective and reflect all three orientations - tutoring, testing and interviewing the teacher. The specific procedures will be described in Chapter Three.

Emerging from Chapter Three and specified in Chapter Four will be the emic approach, the "real world" exploration and verification of the first etic perspectives. This chapter details the specific, context-related evidence regarding communicative competence acquired amid one kindergarten class in cooperation with the teacher. Principles which integrate the various streams of evidence will culminate the emic stage of this research and conclude Chapter Four.

The second etic stage ends this dissertation and provides the foundation for further research. The question that began this study will be answered according to the integrated evidence. This beginning, one study, might become the foundation for a second study. Bloom (1978) described this three approach sequence as:

> an etic to emic to etic plan that uses the relevant emic account as an etic set of hypotheses in order to investigate the behaviors of a larger group of children. Such a chain of events whereby a category is derived from well-documented evidence from a few subjects, and then applied or tested with evidence from a larger number of subjects, is a reasonable goal for observational research. (p. 4)

Since this second etic approach constitutes the basis for subsequent research, the final two chapters of this dissertation could initiate a second study. Chapter Six will present the conclusions emerging from this study, the integration of the three conceptual and three methodological perspectives into a statement that incorporates the importance of context, goals, symbolic weighting of performance, social interaction, and processes of interpersonal judgment. Chapter Seven, the implications of these theoretical statements, will suggest subsequent areas of investigation and conclude that there are new, more sophisticated questions that remain unanswered.

Summary of Chapter One

The Focus of the Search. The information presented in this dissertation began with a "real world", "real school" question of the researcher. This question became defined as "What constitutes communicative competence in kindergarten?". After study of the related literature, it was confirmed that the current models of language competence are inadequate to answer the question posed. The search was begun for a more accountable model.

Three Bases for Investigation. An initial premise of this search was that the emerging model must transcend many of the narrow representations now in use. Conceptually, it must be trans-molecular. It must also have its roots and its application in the "real world" of the school. Of the orientations that promised to contribute to this model, three were chosen. The first, the sociogenesis of thought and language was chosen because it had logical relationships to the role of the schools -- teachers facilitating learning for children in a social context. The second, standardized measurement, was chosen because it seemed to have some validity in assessment, because it represented the status quo for a great deal of language measurement, and because it was the context from which the original question emerged. The third orientation was chosen because teachers seem to have evolved informal heuristics for assessing language competence in context. Practice seems to have pre-dated theory, and the teacher's perception of reality promised to contribute to the solution of this question.

Organizing Extensive Evidence. From the outset it was clear that the procedures that had been developed would produce extensive, somewhat unrelated evidence. As a result, the integration of the strands of information also needed to be planned. To accommodate this integration and provide a format for its explication, the entire enterprise was viewed as having three stages. In the first stage, the first etic stage, the conceptual bases for the study and the procedures through which it would be conducted were determined on the bases of personal experience and relevant literature. The emic stage, the second stage, involved entering a kindergarten class and obtaining information from the children, the teacher, the context and the interaction. The third stage, the second etic stage, required the formation of new, better-informed theoretical statements to provide the foundation for subsequent study.

The research reported here emerged from a "real world" question which was subsequently defined as "What constitutes communicative competence in kindergarten?". Because current models of language development were inadequate for providing an answer, an integrative, trans-molecular perspective was sought. To develop this perspective, diverse conceptual bases were identified: sociogenesis of language and thought as demonstrated in adult-child tutoring, standardized measurement procedures, and teacher judgment. These approaches suggested evidence gathering strategies, which were organized in three steps: etic to emic to etic. The broadly based evidence organized in these steps became the foundation for the answer to the study question and the formulation of emerging questions.

CHAPTER TWO: Review of the Literature

Introduction

Children are the performers; teachers are the gatekeepers. The interactions between them are complex, and the judgments made on the basis of these interactions are important and complicated. This study was directed toward one of these judgments, the question "What constitutes communicative competence in kindergarten children?".

The research involved the three complementary methodological sequences described in Chapter One as etic to emic to etic. It also involved three conceptual bases: sociogenesis of language and thought as represented in adult-child tutoring, standardized procedures for assessing language, and teacher judgment of communicative competence.

The answer to the focal question depended upon diverse conceptual bases and resultant evidence-gathering strategies. The information from these was integrated into a position bridging the historical restrictiveness of many "blinkered" perspectives. As a result of this broad scope, the first step in the research, an etic stage, was concerned with a correspondingly wide range of professional literature. The literature reviewed in this chapter will represent the major topics of 1) historical background, 2) the sociogenesis of language and thought, 3) standardized procedures for assessing language, 4) principles of interpersonal judgment, and 5) methodology for obtaining and analyzing reconstitutive ethnographic evidence.

Historical Perspectives

> Two roads diverged in a wood, and I -
> I took the one less travelled by,
> And that has made all the difference. (Frost, 1923)

The novice researcher enters the study of language as one entering well after a theatrical play has begun. Old positions are restated, arguments - settled and on-going - become evident, and directional trends of development are partially obscured. Wiles (1983) views historical review as a necessity which allows novices to

> know enough of what has happened in the recent past to see themselves as inheritors of traditions, participants who enter at a particular stage of the debate (and need to inform themselves ... by access to the minutes), enquirers, whose interests are in great part determined, as are the means of enquiry available to them, by their point of entry to the ongoing, developing discussion. (p. 7)

The importance of language to human thought and social exchange has been evident throughout history. Although this fascination can be identified through many epochs of history, this century and especially the last thirty years have produced significant advances in understanding the process of language acquisition in children. It is in contrast to some of these advances and as an extension of others that this dissertation developed. This section briefly describes critical positions regarding language acquisition literature and contrasts among these positions. A more detailed description of the specific theoretical positions used in this dissertation will follow. Thus the first sections could be sub-titled "roads not taken" (Frost, 1923); the others form the theoretical bases for all further development of the research reported here.

Psychologists as Early Scholars of Child Language

The study of child language in the 1900's emerged predominantly from the emphasis by psychologists on language in child development; the discipline of linguistics focused predominantly on adult language systems. Stern and Stern (1928), early contributors to the study of child language, divided the child's pre-school language development into four stages, stressing the function and meaning of children's utterances as well as making reference to the forms children used.

During the 1930's two psychologists, whose impact on language study remains powerful, interacted briefly in writing about child language. The approaches of Jean Piaget and the reactions of Lev Vygotsky to these percepts promised rich information which was ended too soon by Vygotsky's death. The basic contrast between their two positions, however, remains critical in modern research. Succinctly, Piaget saw language as the result of thought; Vygotsky saw thought as separate from language in the first two years of life and essentially fused with language thereafter. Furthermore, Piaget viewed language development as moving from egocentric to social; Vygotsky contended that language moved from social to egocentric to internal. Both agreed that a critical link exists between language and thought.

In the 1940's the contributions of Roman Jakobsen (1941), Dorothea McCarthy (1930, 1954) and Mildred Templin (1957) were especially remarkable. Jakobsen's contribution was largely related to his application of the structural and functional analysis methods from the discipline of linguistics to the study of child language. Although not the first linguist to become interested in this topic, his involvement marked the beginning of greater emphasis given to child language from the linguistic perspective. In contrast, Dorothea McCarthy's and Mildred Templin's approaches were as developmental psychologists interested especially in documenting normative patterns. Their comprehensive analyses of the normal language of a wide range of children produced compilations of normative data in this area, which still serve as references in current descriptions of child language (Fox & Allen, 1983).

In parallel with the developments described above, behavioral psychology and an emphasis on operant conditioning, rooted in the work of Thorndike (1913) and Watson (1925), asserted that children developed language as a direct result of the reinforcement they received as they produced sound. As a result of selective reinforcement the child's language behavior was shaped until the child attained adult levels of performance. In 1957, B.F. Skinner explained children's acquisition of language according to this paradigm in his book *Verbal Behavior*. This approach to understanding child language not only dominated the 50's, but also seemed "safe from serious and fundamental change" (Willes, 1983).

Syntax or Semantics Became the Linguistic Debate

It was a seemingly routine evaluation of Skinner's book in the journal *Language* by Noam Chomsky (1959), however, that began the great debate that continued into the 1960's and led to the drastic revision of behavioral approaches to language acquisition. Concisely, Chomsky espoused a nativistic position. Subsequently supported by the biologically-oriented work of Lenneberg (1967), Chomsky indicated that humans are born with an innate potentiality to develop language, a Language Acquisition Device. Not specifying the organic nature of this device, Chomsky postulated that children had an inherent universal ability to comprehend language syntax and from this ability they developed the language used by the people in their environment.

Among the arguments advanced by Chomsky, which continue to influence language studies, were two key criticisms of Skinner's theories. The first, Chomsky stated, was that reinforcement could not account for all the varieties of syntactic and morphological patterns children develop. That is, the child's total repertoire could not have occurred and been directly reinforced. Second, and similarly, Chomsky explained that the creativity evident in human language could not be explained if all language must first occur and be reinforced. Creativity must instead by related to the person's ability to abstract morphological and syntactic rules of language and apply these to novel structures.

From these persuasive arguments renewed interest in child language was fueled, and research based on syntactic measures flourished. Many of these (Brown, 1973; Brown & Bellugi, 1964) documented syntactic development in children using one and two word sentences. This information still forms a cornerstone in subsequent theory development about early language. Extending the syntactic model, however, began to prove the weaknesses of Chomsky's syntactic theory.

Notable among the researchers whose evidence contradicted Chomsky was Lois Bloom, whose daughter's now classic "Mommy sock" provided elucidating evidence that children emphasize semantic rather than syntactic components. Retaining many of the structural linguistic descriptors such as open and pivot class words, Bloom progressed toward a more comprehensive model of language which accorded due importance to semantic variables. The components of this model - form, content, and use - remain as valuable heuristics in theory development.

Like Bloom, Schlesinger (1971) and Bowerman (1973) directed their efforts toward understanding the semantic classes children express in their early language, finding that child language data could be better accounted for by using a semantic rather than syntactic explanation. The renewed emphasis returned researchers again to the writings of the Sterns (1928) who had emphasized the link between language and thought. The renewed importance of relationship between cognitive processes and language was typified by the book Symbol Formation by Werner and Kaplan (1963). Their emphasis on children's development of symbols continues to have an impact on current theory development. This is best illustrated by Bates (1979) crediting the contributions of Werner and Kaplan to the development of her theoretical and empirical work on the emergence of symbols.

An accurate chronology of language development research must include Piaget's contributions across several decades. Interestingly Vygotsky (1934/1962) responded to Piaget's theories and contrasted them to his own. Similarly European psychologists and linguists recognized and critiqued Piaget's contributions. However, in North America the impact of Piaget's work was greatest after 1960. Two reasons for this are most evident. First, some of Piaget's extensive observations became available in English and thus available to English-reading scholars. Second, the Chomsky-prodded shift from the reinforcement emphasis of Skinner to the more cognitive, semantic-based emphasis typified by Bloom corresponded more closely to the cognitive emphasis provided by Piaget. The influence of Piagetian principles remains in current writing on language acquisition.

Context Became Important

From the beginning of the semantic emphasis the importance of context received attention. Bloom explained that Allison's "Mommy sock" could be interpreted by the adult according to the context. This emphasis on context continued to develop into the 1970's until what Lund and Duchan (1983) term the "pragmatic revolution" occurred in language studies.

The context, already a central factor in the theories of sociolinguistics, began to produce a sensitivity and analysis of the sub-cultures within the majority culture. A logical application of this trend was the study of the language and culture of school. Cicourel (1972) contributed one of the earlier studies, and Wilkinson (1982), Mehan (1982) and others expanded knowledge in this area. This approach, which assumed that communicative competence serves as both the means and end in achieving educational objectives, focused on three themes: "a) the complexity of social interaction in the classroom; b) the diversity of students' learning and development; and c) the central role of the teacher" (Wilkinson, 1982, p. 5). Similarly the language of the school became a focus for study (Butler, 1984; Blank, 1978) as did the relationship between the language systems of the child and teacher (Nelson, 1984).

Within these contexts the contrast in focus and methodology persisted. Some (Lund and Duchan, 1983) moved to more contextually relevant sites for observation but preserved the structural linguistic emphases. Others, (Bates, 1979) considered the child's variation in performance across a range of contexts, but persisted in focusing upon child actions, using many perspectives typical of Piaget. Still a third group, represented in this dissertation, and described in greater detail later in this chapter, attended to the interaction between the child and the context, including the people, objects, expectations and experiences of that context.

Communicative Competence, a Sociolinguistic Perspective

In the late 1960's when linguists were reacting to the syntactic emphasis of Chomsky and others, and researchers such as Bloom were beginning to emphasize the role of semantics in sentence development, sociolinguists were also reacting to the narrow emphasis of Chomsky. It is important to note that although Chomsky's theory initially served as a criticism of Skinner, Chomsky's critics were not proponents of Skinner's theories. That is, the linguists who criticized Chomsky nonetheless concurred with his criticism of Skinner; they rejected both theoretical positions.

Among the sociolinguists recommending a changed perspective to studying language acquisition was Dell Hymes (1971), who recommended that the focus of study should be "communicative competence". Due to Hymes persuasive writing in this area his name is frequently linked directly to the phrase "communicative competence" (Weimann, 1980; Simon, 1984).

The term communicative competence was used initially to contrast with Chomsky's use of the term "competence". According to the transformational generative grammar perspective of linguistic theory there are two language components, performance and competence. Performance is the individual's encoding and decoding of language and the overall use of language the person demonstrates; competence, in contrast, is the universally held underlying comprehension of grammatical rules, the covert knowledge.

It was in relation to Chomsky's definition that Hymes contended that social interaction patterns, not universal grammatical rules, were the appropriate focus for studying the acquisition of language. In 1971 he explained that Chomsky's emphasis on the ideal speaker-listener situation was tantamount to a "declaration of irrelevance" (p. 270).

Unlike Chomsky's definition of competence, Hymes' focus on "communicative competence" suggested a perspective rather than a restrictive construct and charged linguistics with the necessity of accounting for the broader scope of child learning in any explanation of the acquisition of language by children. As Hymes explained,

> We have then to account for the fact that a normal child acquires knowledge of sentences, not only as grammatical, but also as appropriate. He or she acquires competence as to when to speak, when not, and as to what to talk about with whom, when, where in what manner. In short, a child becomes able to accomplish a repertoire of speech acts, to take part in speech events, and to evaluate their accomplishment by others. This competence, moreover, is integral with attitudes, values, and motivations concerning language, its features and uses, and integral with competence for, and attitudes towards, the inter-relation of language with the other codes of communicative conduct. (1972b, p. 277-78)

Elliott (1981) captured this by using communicative competence as a synonym for context-appropriate language, and Simon (1984) applied the title in a clinical context integrating the perspective of Hymes with the functional emphasis and resultant descriptors of Halliday (1975) and Dore (1974) and the longitudinal studies of Loban (1976). In current use the phrase "communicative competence" is sometimes used in literature to describe linguistically focused patterns in the sociolinguistic perspective as in John Gumperz's (1984) monograph "Communicative Competence Revisited" in which he asserts that the "sociosequential organization of speakers' moves is as basic to conversational analysis as clause boundaries are to syntax" (1984, p. 4). Similarly Cook-Gumperz and Gumperz (1982) reiterate this perspective in relation to education, by stating that the term communicative competence infers that "there exist measurable regularities at the level of social structure, and social interaction, which are as much a matter of subconsciously internalized ability as are grammatical rules proper. Control of these regularities ... is a precondition of effective communication" (p. 14). Furthermore, they contend that "critical for any consideration of communicative competence is the need to see the sociolinguistic practices of speaking and interacting within the wider context of the educational assumptions and ideologies held by members of the society" (p. 17).

Hopper and Naremore (1978) further support this orientation from an ideological perspective "Linguists like to say that each of us has a linguistic competence consisting of what we know about language. We would expand that concept to say that people possess 'communicative competence' covering knowledge of the entire range and scope of communication. This humanistic conception of communication encourages us to think that all people are related to each other" (p. 126).

Despite this apparently shared understanding across researchers, the phrase "communicative competence" remains somewhat vague. Weimann (1980) delineated the imprecision of the phrase by identifying four issues that affect subsequent theory development:

1. lack of definitional consistency,
2. manner in which a person may 'possess' competence,
3. way in which communication competence is distinguished from similar concepts,

4. constitution of communicative competence, its attributes and dimensions. (p. 186)

Just as there is potentially a range of meanings for the phrase "communicative competence", the concept advanced by Hymes is also reflected and approximated in other phrases which are evident in the literature. In some ways this concept has been captured by Bowerman as "beyond communicative adequacy" (1985) and by Prutting as "social competence" (1982).

In acknowledging these variations an important consideration should be identified - in the 1980's researchers in language acquisition typically emphasize the communicative context and social interaction in which language functions and the relationship between function and acquisition. Frequently described as the pragmatics of language, this theoretical perspective had its origins with the philosophers of ancient Greece and the traditions of rhetoric. For the last century the philosophy of pragmatics has been advanced by philosophers like Peirce (1878), Wittgenstein (1958), and Searle (1969) and linguists such as Lakoff (1972). In her review of the historical-theoretical foundations of pragmatics, Prutting (1982) concluded that pragmatics is actually the counterpart of social competence: "There is no way to interpret social competence unless communicative behavior and context are treated simultaneously" (p. 132).

In the research reported in this dissertation, the use of the phrase "communicative competence" implies the sociolinguistic perspective. Nonetheless, the contributions of pragmatics research to the author's conceptual understanding of the significance and ramifications of the sociolinguistic perspective are considerable.

Rationale for Theoretical Emphasis

From the outset the question "What constitutes communicative competence in kindergarten?" was a real-world question arising from the researcher's experience. The experienced discrepancy from which the question arose also suggested the significant characteristics of that discrepancy. It appeared that the contrast developed from comparing specific units of the child's performance with the child's over-riding pattern of performance. That is, the molecular units contrasted with the molar interpretation.

A second consideration, related somewhat to the first, was the perception that it was the adult's judgment of the child based on the child's performance which determined a competency judgment. Furthermore, the role of the adult in the context was a critical factor in the formation of such a judgment. The result of this was to place less emphasis on the cross-context performance of the child and greater emphasis on the adult-child and child-child interactions in specific contexts. Furthermore, given the school entry emphasis of the research question, the context of concern needed to be related to school and the learning/teaching exchange.

In most current theory development the fundamental perspectives can be traced to such works as those of Werner and Kaplan, Piaget, or Vygotsky. Of these the one which gave the greatest emphasis to adult-child interaction, especially as it pertained to the learning process was Vygotsky. The critical impact of adopting this theoretical perspective cannot be minimized; all subsequent development followed logically.

When a question arises from experience, it is the result of the failure of conventional explanations. That is, if conventional wisdom provided an acceptable answer, the question would not remain.

Consequently questions arising from the "real world" suggest the failure of commonplace explanations. In this instance structural linguistic analysis and measures of semantic mastery were at the base of the question as opposed to being the answer to that question. It wa[illegible]propriate therefore to approach the question from a perspective which did not negate the value of established measures, but extended beyond those measures to encompass the greater scope of reality.

Pursuit of an anomaly is fruitful
only if the anomaly is more than non-trivial
Having discovered it,
the scientist's first efforts and those of his profession
are to do what nuclear physicists are now doing.
They strive to generalize the anomaly,
to discover other
and more revealing manifestations of the same effect,
to give it structures
by examining its complex interrelationships
with phenomena they still feel they understand.

(Kuhn, n.d.)

The solution to the question which began this study, therefore, was to view established information from a different perspective which allowed the integration of language's "reified, excessively rationalistic constructs" (Bain, 1983, p. xxi) with a molar perception of language in context. This approach, a sociogenetic perspective, included a multi-disciplinary attitude and rested on the early sociogenetic thought of Lev Vygotsky.

The selection of the Vygotskian perspective determined the subsequent focus in language literature. In the following section information on Vygotsky, Bruner, Cazden and Mehan will be provided. On the basis of contributions to theories regarding language acquisition these researchers are presented in order of theoretical impact and temporal sequence. Of them, as noted before, Vygotsky has had the greatest impact on theory development. Bruner, who turned his attention to early language development in the 1970's, has attempted to develop a framework to describe learning interactions. Cazden, a more contemporary contributor, has extended empirical methodology to the classroom and Mehan has specifically incorporated ethnomethodology in classroom research.

In summary, the initial anomaly suggested that "something" occurred in the dynamic interaction of the child with the teacher, with other children, with the school context, and with the process of learning, which not only created a competency-related judgment by the adults in the context but also contrasted with specific isolated units of the child's performance. The theoretical perspective which was most promising in exploring this possibility was derived from the work of Vygotsky, who emphasized the sociogenesis of learning, the interaction between an adult and child, in advancing the development of both thought and language. From this logical selection, all else followed. Contemporary researchers in the Vygotskian perspective became the sources for investigative methodology appropriate for the research question: "What constitutes communicative competence in kindergarten children?"

Sociogenesis of Language and Thought

A focal point across this dissertation is the language of social interaction in the service of cognition. Specifically, this concern is represented by the language of adult-child tutoring. These topics relate most directly to the seminal works of Lev Vygotsky and Jerome Bruner. Despite certain differences in socio-political backgrounds, the statements by Vygotsky and Bruner share a common perspective regarding the sociogenesis of language and thought. James Wertsch, an American scholar of Vygotsky's work, builds the parallel between the two psychologists but then acknowledges the difficulty in confirming his statements by adding "however, it is not clear that Vygotsky would agree ..." (1978, p. 17).

Although the setting of Vygotsky's work was the Soviet Union of the nineteen twenties and thirties, it has come to transcend political boundaries and become part of the intellectual heritage of worldwide psychology. As Bruner (1962) explained, "Given a pluralistic world where each comes to terms with the environment in his own style, Vygotsky's developmental theory is also a description of the many roads to individuality and freedom. It is in this sense, I think, that he transcends, as a theorist of the nature of man, the ideological rifts that divide our world so deeply today" (p. x).

Vygotsky:

L.S. Vygotsky's impact on psychological thought remains evident throughout the discipline of psychology. He formulated theories of cognitive development with logical links to the writings of Marx and thereby contributed significantly to the entire Soviet school of psychology which focuses upon the psychology of activity. His students, Luria, Levina, and others, continued his research and research methodology after Vygotsky's death in 1934 at age 38.

In addition, Vygotsky's principles of ontogenetic and sociogenetic processes were often applied outside the Marxist context. Contributing to the decontextualization of his ideas was the time interval between the first appearance of Vygotsky's essays in Russia in 1934 and the appearance of the text, reorganized at the request of Alexander Luria, in 1957. In 1962 this text was published in English as the book Thought and Language. In many ways, as Bruner stated, the power of Vygotsky's ideas is supported by their validity across historical contexts.

Among Vygotsky's most highly acclaimed statements is his contention that in the child's process of development, thought and language each have different genetic roots and each can be identified separately in the behavior of infants. Furthermore, at about two years of age, thought and language join to produce a new form of behavior "when speech begins to serve intellect and thoughts begin to be spoken" (Vygotsky, 1934/1962, p. 43). The link between the two is not static but rather

> the relation between thought and word is a living process: thought is born through words. A word devoid of thought is a dead thing, and a thought unembodied in words remains a shadow. The connection between them, however, is not a preformed and constant one. It emerges in the course of development and itself evolves. (Vygotsky, 1934/1962, p. 153)

Another of Vygotsky's percepts was stated in direct contrast to Piaget's position that true social speech develops as the child becomes less egocentric. Vygotsky held that speech has its origins in social interaction and becomes internalized as the child matures, stating "thus our schema of development - first social, then egocentric, then inner speech" (p. 19). Vygotsky (1934/1962) also stated: "The primary function of speech, in both children and adults, is communication and social contact. The earliest speech of the child is therefore essentially social. At first it is global and multifunctional; later its functions become differentiated" (p. 19).

According to Vygotsky, external speech relates directly to the stage at which language development, conceptual development, and general acculturation originate. The role of the communicative partner is stressed in this process for "what the child can do in cooperation today he can do alone tomorrow" (Vygotsky, 1934/1962, p. 104). Vygotsky elaborated on this sociogenetic principle by stating,

> The general genetic law of cultural development is as follows: Any function in the child's cultural development appears twice, or on two planes. First it appears on the social plane, and then on the psychological plane. First it appears between people as an interpsychological category and then within the child as an intrapsychological category. This is equally true with regard to voluntary attention, logical memory, the formation of concepts and the development of volition. (Wertsch, 1981, p. 163)

Levina (1981) described her work under Vygotsky in 1931 and the impact of his theoretical and methodological approaches in her subsequent research. In the 1931 studies it was noted that during early stages of development children relied on speech to describe the environment. They later linked speech to thinking; this fusion restructured the process so that thought became qualitatively different as a result. The use of speech liberated children from some aspects of the environment by allowing the children to impose their own goals and to conceptualize future actions. This evidence of verbal planning was noted during the four and a half year period in these studies.

Directly related to the sociogenesis of thought and language was the concept of the zone of proximal development. As described by Vygotsky (1934/1962, p. 153) the zone of proximal development is

> the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving

> under adult guidance or in collaboration with peers. (p. 86)
>
> The discrepancy between a child's actual mental age and the level he reaches in solving problems with assistance indicates the zone of his proximal development ... Experience has shown that the child with the larger zone of proximal development will do much better in school. (p. 103)

Among young children Vygotsky and Levina found that a child might be unsuccessful in solving a problem until asked by the experimenter to explain the problem. By being required to speak, the child might plan the action, select the salient stimuli and solve the problem correctly. This was a classic example of the zone of proximal development in that the child was unable to solve the problem independently but could solve the problem when asked to describe the problem verbally.

Wertsch (1979) described a similar puzzle-solving problem in which the adult was "providing other-regulation in the zone of proximal development" (p. 7). In this case mothers were asked to guide their children through a puzzle assembly task to completion. On the basis of this study, Wertsch hypothesized four stages in the transition toward independent regulation of behavior. First the child may be unable to interpret and consequently unable to apply the adult's statements in relation to the task. Second, the child may respond to the adult's specific commands or questions but not comprehend the full implications in terms of the entire task. At the third level the child can follow non-explicit directions or hints and assume some self-regulation. At this stage the adult is necessary but does not need to specify all necessary steps or procedures. In the most independent stage the child is self-regulating and the adult does not provide any strategic assistance. Wertsch concluded that any specific task includes four stages of internalizing from inter-psychological processes to intra-psychological processes.

The assistance the adult provides during these four stages corresponds to Vygotsky's statements about the development of voluntary attention. He explained that the role of the adult mediator is to focus attention on a particular feature that relates to the goal of the activity. This process is the precursor of voluntary attention, "the process of mediated attention that has gone underground" (Wertsch, 1981, p. 207). Attaining this voluntary attention was viewed by Vygotsky as a critical component of subsequent conceptual development.

Bruner:

Greatly influenced by Vygotsky, is the American psychologist Jerome Bruner. Due to his greater longevity and his access to the English language press, Bruner's works have contributed to psychology over a longer period than have those of Vygotsky. The principles of the two, however, are typically parallel and consistently compatible. Among these parallels is Bruner's (1975) emphasis that "language is acquired as an instrument for regulating joint activity and joint attention. Indeed its very structure reflects these functions and its acquisition is saturated with them" (p. 2).

The Inter-subjectivity of Interaction. This emphasis on the social nature of language lead Bruner and others to study the interactions between mothers and their children and between adult tutors and children. These interactive patterns which foster conceptual growth in children, "are based on the assumption that the child grasps the idea of inter-subjectivity -- that others have intentions" (Bruner, 1975, p. 7). This inter-subjectivity will be described as the negotiation of shared meaning. Bruner's studies of the inter-active nature of tutoring have close relationships to Vygotsky's zone of proximal development and Wertsch's stages of independent regulation of behavior as cited above.

In one study (Wood, Bruner & Ross, 1976) children aged three, four, and five years were tutored by an experienced teacher. The term scaffolding was used to describe the dialogue between the child and tutor as they completed a pyramid of wooden blocks. This scaffolding included six identifiable functions within the role of the tutor. The first, recruitment, was the teacher's role in interesting the child in the purpose and the materials of the activity. Second, the tutor reduced the child's degree of freedom by simplifying the task to the components the child could complete successfully. More specifically, "the 'scaffolding' tutor fills in the rest and lets the learner perfect the component sub-routines that he can manage" (Wood, Bruner, & Ross, 1976, p. 98). Direction maintenance, the third function, involved maintaining motivation and the direction of the action. The fourth function was to accentuate the relevant features of the task and also focus attention on the important discrepancies between the child's actions and the necessary processes. The fifth role was expressed in the maxim "Problem solving should be less dangerous or stressful with a tutor than without." (Wood, Bruner, & Ross, 1976, p. 198). The actual demonstration or modelling of a task, the sixth function of tutoring, assumed that the child would imitate the tutor in some appropriate way. All six functions were adult efforts toward the child's performance success.

Bruner studied the interactions between mothers and their children who ranged in age from 8 to 24 months, during a book reading activity. As a result, he identified four constituents within the mother's role: 1) attentional vocation ("Look"), 2) query ("What's that?"), 3) label ("It's an X"), and 4) feedback utterance ("Yes, that's a cat"). At all of the children's age levels, the mothers continued to "raise the ante" for accepting the child's responses; as soon as one level of accuracy was achieved by the child, the mother began to prompt and require the next level of complexity. In summarizing Bruner suggested that the mother's functions were actually those of 1) indicating, 2) requesting, 3) affiliating, and 4) generating possibility for the child.

The concept of scaffolding, applied directly to the child's language learning, has been termed Language Acquisition Support System (LASS) (Bruner, 1983). This involves turn-taking and expansion strategies as described above with the senior participant assisting the junior member in completing a statement. The senior participant need not be literally older than the junior partner, but does need to have greater sophistication with the task and consequently the ability to contribute to the success of the less experienced partner. In this process the senior partner 1) provides linguistic, conceptual, and motivational support as needed, 2) provides only the amount of support necessary, and 3) decreases the support as the junior member becomes able to function more independently.

Cazden:

The perspectives represented by Courtney Cazden have been of central importance to the development of this study because she has emphasized the classroom as the context for language and social interaction. Her application of principles from Bruner and Vygotsky to the classroom and her collaboration with Mehan in an ethnography of the classroom provide the critical links from theory to practice for the study reported here.

Cazden (1981a) studied teacher-child dialogue in the perspective of Vygotsky's zone of proximal development. The critical issue of this study was being able to "distinguish between help that somehow gets a child to produce the right answer, and help from which the child might learn how to answer similar questions in the future" (p. 5). Citing dialogue in which she served as teacher, Cazden concluded that "the teacher assumes - with Vygotsky - that the assisted performance is not just performance without competence, but performance before competence -- that the assisted performance does indeed contribute to subsequent development" (p. 7).

Subsequently Cazden (1983) suggested the school-related importance of Vygotsky's zone of proximal development and Bruner's scaffolding. These concepts also describe the social exchange games played by a mother and child, e.g. peek-a-boo. It was Cazden's contention that the child's learning of the interactive scaffolding patterns of the home provided the foundation for the child's learning the interactive scaffolding patterns of the classroom.

Cazden further explored the parallels between the culture of the classroom and the social interactive patterns that facilitate cognitive and linguistic development. She concluded that in learning to build greater complexity in the early tutorial dyad with nursery rituals the child gains the ability to recognize salient cues in the classroom speech of the teacher. Thus the child not only develops greater linguistic complexity as the result of the scaffolding dyad, but also learns how to use the scaffolding interaction across a range of contexts and partners. "That is, the children became interactionally more competent in tacitly understanding the structure of the lessons and functioning within that structure for their purposes as well as the teacher's" (1983, p. 51).

At school entry the culture of the school becomes mediated to the child through verbal signs. In school, to become viewed as a competent member of the culture of the classroom, a child must acquire speech and thought patterns that demonstrate this competence. Initially these patterns become evident in the dialogue between the teacher and the child but eventually the language becomes internalized and is used by the child in planning, executing and self-regulating in the classroom context.

Another critical contribution of Cazden to this study involved her role as teacher and collaborator in a project with Mehan (1979). Mehan's discussion of Cazden's year as a teacher and the resultant ethnography of the language/social interactions of the teacher and children served as an impetus for the research reported here. A later section of this chapter specifies the application of Mehan's research approaches to this study.

Implications from Adult-Child Tutoring: The shared orientations of Bruner and Vygotsky and the application of these by Cazden are pervasive factors in this study. This conceptual orientation has logical relationships to the development of cognitive processes in a social context. In the research procedures this base led to the development of two components. The first involves the zone of proximal development and the process of scaffolding, which are represented in adult-child tutoring. Information from the tutoring interaction was obtained twice during the study through the administration of a standardized visual analogies test to each child under two conditions 1) as directed by the manual, and 2) with coaching. Evidence across these four administrations and descriptions of the tutorial interaction is summarized for each child in Chapter Four. In this evidence the complexity and sensitivity of the interaction are notable. Second, the implication for this study involves the importance of social interaction, which became a focal point in the integration of the extensive evidence. In addition, the conceptual perspectives of Vygotsky, Wertsch, Bruner and Cazden were applied consistently in the discussion as presented in Chapter Six.

Standardized Measurement of Language

One conceptual basis for this study was standardized testing, which allows a comparison of a child's responses in a structured situation with normative data regarding the responses of others on the same tasks. Tests and their related norms are probably familiar to most readers and will be discussed briefly only as they relate directly to this study.

The use of standardized tests to assess child language performance has its roots in the early work of Binet, Terman and Wechsler and can be illustrated by the Vocabulary and the Reasoning sub-tests in the Wechsler Intelligence Scales for Children (Wechsler, 1974) and the Stanford-Binet Intelligence Scale (Terman & Merrill, 1960). These have more recently been augmented by tests which are designed specifically to test language development. Some of these like the Boehm Test of Basic Concepts (Boehm, 1967) and the Wepman Auditory Discrimination Test (Wepman, 1973) assess a single aspect of language development. Some authors like Kirk, McCarthy, and Kirk (1968), Newcomber and Hammill (1977), and Zimmerman (1969) have attempted the construction of more comprehensive test batteries. A few of these more comprehensive batteries, like the Hiskey Nebraska Test of Learning Aptitude (Hiskey, 1966) were developed for special populations of children, e.g. deaf, multiply handicapped.

The application of standardized tests and the improvement of tests according to various models of human intelligence are also addressed in the literature as are the misapplication of testing procedures (Gould, 1981). In a recent Canadian study, (Illerbrun, Haines & Greenough, 1985) the validity of a battery of speech-language tests in mass screening was investigated and the implications of the test scores were discussed (Illerbrun, 1985). Among the changes some advocated in testing was the recommendation for more dynamic test procedures. Resembling the zone of proximal development defined by Vygotsky, this testing mode would assess children's ability to benefit from adult assistance, i.e. their ability to learn (Feuerstein, 1979; Brown & French, 1979).

In general practice, the scores from standardized tests have been considered in judging whether an individual child's language development was progressing normally. Although widely used, these tests were rarely seen as infallible. As Seigel (1975) summarized:

> The information we obtain by administering a standardized test is a useful piece of evidence, part of the descriptive tapestry we assemble in order to understand a child's problem -- indeed to determine whether a child ought to be considered as having a problem -- but it does not define the problem. The experienced clinician decides a child may need special services on the basis of an aggregation of facts and impressions involving the pattern of evident speech behaviors, the child's age and maturity and the reactions of others to his speech, and, ultimately, the clinician's own impressions, honed by training and experience, of the child's performance. It is indeed useful to have some documentation about the general developmental course of language behavior; and it is helpful to have these normative generalizations available when counseling with parents or other professionals. ... The test describes a child's performance and allows a comparison with some normative sample of the same age, but it does not establish the limits of normalcy; it does not presume to define normal behavior. The child's parents, peers, and teachers do not react to his speech in terms of some numerical index. (p. 124)

This tempered description of standardized tests corresponds to more recent studies regarding the ability of 30 speech and language tests commonly used with preschoolers to fulfill ten basic psychometric criteria. The authors concluded that "on the whole, the reviewed tests failed to provide compelling empirical evidence that they can reliably and validly be used to provide information concerning the existence of language or articulation impairment." (McCauley & Swisher, 1984, p. 40)

Implications from Standardized Measurement Procedures

In this study portions of three tests were used: The Boehm Test of Basic Concepts (Boehm, 1967), the Grammatical Understanding and Vocabulary subtests from the Test of Language Development (TOLD) (Newcomber & Hammill, 1977), and the Picture Association sub-test of the Hiskey-Nebraska Test of Learning Aptitude (Hiskey, 1966). Each was selected because it was viewed as relevant to the classroom activities upon which the teacher might judge the child's communicative competence. The procedures involving these tests will be detailed in Chapter Three and the results described in Chapter Four.

Structural Analysis

Structural analysis has its roots in linguistics and subsequently in the discipline of structural linguistics. These fields have relied on descriptors of child language as indicators of the child's linguistic proficiency with specific emphasis on syntax and morphology. Such hallmark studies as those of Roger Brown (1973) provided impetus to the use of structural analysis in studying child language. These initial studies concentrated on the very young child. As research extended beyond Brown's level of greatest complexity, Stage V, to the language of older children, other approaches were adopted to allow analysis of more complex language systems. Among these developments, the Developmental Sentence Analysis (Lee,

1974) has served as the foundation for many, varied methods of structural analysis (Barrie-Blackley, Musselwhite & Rogister, 1978). The more recent development of computer programs for linguistic analysis developed to some extent from Lee's procedures also (Mordecai, Palin & Palmer, 1982).

There are many ways of collecting children's language for structural analysis. Most emphasize orchestrating opportunities for the child's use of relatively spontaneous verbal language (Barrie-Blackley, Musselwhite & Rogister, 1978). One technique described in current literature (Culatta, Page & Ellis, 1983; Peluso & Cartwright, 1982) involves having the child re-tell a familiar story.

Regardless of the language sampling and analysis techniques used, the emphasis of structural analysis is on the forms of the language. Thus the meanings of the utterances and the intent of the speaker are typically unrelated to the scoring.

Implications from Structural Analysis

Because linguistic measures to assess the complexity of child language development are used so pervasively in child language literature, it seemed necessary to incorporate this component in a study regarding the question of communicative competence. Once again the possible ways to implement such a component were judged to maximize their potential similarity to the classroom evidence. That is, academically oriented activities were used when these were among the options.

Because a story re-telling activity corresponds to the pre-literacy activities of kindergarten, this type of activity was used to collect each child's language sample for structural analysis. After a written transcript was made from each tape-recorded sample, the transcript was analyzed using the micro-computer program, Lingquest 1 Language Sample Analysis (Mordecai, Palin, & Palmer, 1982). The procedures used for structural analysis are detailed in Chapter Three and the results are described in Chapter Four.

Reconstitutive Ethnography

The introduction of an ethnographic approach to the classroom brought with it an emphasis on discovering what constitutes the lived reality of some of the participants. Hymes (1980) explained:

> ethnography is likely to make it difficult to argue solutions that take for granted the fault or failure of teachers, of parents, or of some other category of scapegoat. Ethnographic inquiry is likely to show people doing the best they can with what they have to work with, given what it is possible and reasonable for them to believe and do. (p. xiii)

When Courtney Cazden served as a classroom teacher she had as one of her collaborators "Bud" Mehan, who is noted for his contributions to the ethnographic study of the classroom including the language of the classroom (Mehan, 1979a). Two of his contributions were especially important to this study because they provided critical information and suggested possible methodologies.

Joint Viewing with Practical Reasoners. The first of direct relevance (Mehan, Hertweck, Combs & Flynn, 1983) was a study developed to better understand teacher's perceptions of children whom they referred for consideration regarding special education placement. To do this the authors wished to "explore the relationship between what teachers say about students' classroom behavior and what students actually do in classrooms" (p. 297). One of the techniques of this exploration was the teacher's and interviewer's watching jointly a tape of the child functioning in a typical classroom activity. Whenever the teacher observed the child doing something upon which to comment or behaving in a way that caused the referral, the teacher stopped the tape and commented on what was observed. Mehan et al. referred to this interview process as reconstitutive ethnography.

The conclusions of the 1983 study were that teachers operated as "practical reasoners" by organizing information about children in terms of prototypes they had about children. The teachers' judgments regarding the children's performance in the classroom context followed the classification principles specified by Rosch et al. (1976). Mehan suggested that,

> Because the teacher is attending to organized configurations and not discrete elements, a piece of behavior is not the same when it is conducted by different people in different contexts. ... Thus instead of saying that the teacher is attending to the same behavior in different ways, we are suggesting that the teacher is attending to different behavior in the same way. (p. 313)

The second specific contribution to this study by Mehan (1979a) was his ethnographic study of a classroom with special attention to its communication patterns. It was in this classroom that Courtney Cazden served as the teacher; references to this data are frequent in her publications cited earlier. Given the voluminous data from such a full-year study, Mehan's techniques for deriving principles from this evidence were especially interesting. He viewed the data to identify recursive rules which would account for all instances to which the rule should apply. He described this process,

> This method begins with a small bunch of data. A provisional analytic scheme is generated. The scheme is then compared to other data and modifications are made in the scheme as necessary. The provisional analytic scheme is constantly confronted by 'negative' or 'discrepant' cases until the

> researcher has derived a small set of recursive rules that incorporate all the data in the corpus. The result is an integrated precise model that comprehensively describes a specific phenomena instead of a simple correlational statement about antecedent and consequent conditions. (p. 21)

Implications from Ethnographic Procedures

The third theoretical basis for this study, Mehan's (1983) use of reconstitutive ethnography techniques, was incorporated to explore how a child's communicative performance related to the teacher's evaluation of communicative competence. Furthermore, the analysis orientation described by Mehan (1977) was used to identify social interaction as the source of information regarding competence and suggest specific signs teachers identify in relation to competence. Furthermore, the conclusions from Mehan's (1983) study were prominent in the discussion of the teacher's judgment of children's communicative competence. These ideas are expressed in Chapter Six.

Interpersonal Judgment

One consideration when the reconstitutive ethnography component was developed, again when the study was in process, and recurrently when evidence from the study was being synthesized was the process by which one person makes a judgment regarding another person. In social psychology, attribution theory is one widely accepted explanation of the interpersonal judgment process (Weiner, 1974). Mehan et al. (1983) referred as well to the works of Rosch and Mervis (1976) as accounting for teacher performance in their study. Feldman (1981) bridged these two theories in describing the process by which one person judges another.

Referring to this combination as cognitive processes in performance appraisal, Feldman suggested a dual process system of both evaluation and classification. This process by which one person judges another has two forms: automatic and controlled. The automatic process is dominant and occurs after a "judge" has categorized a person according to a prototype of behavior. From this decision the judge may infer other behavior and may remember the entire prototype as applying to the person rather than recalling only the specific information the person provided. More specifically the judge observes behavior, places the person in a category corresponding to what was observed and infers that other characteristics of the category apply to the person being judged.

It is only when the "judge" encounters information counter to this prototype to a degree which exceeds the individual's level of tolerance that the judgment becomes a controlled process. This controlled process occurs under two conditions: 1) when a person has not yet been assigned a prototype, or 2) when the situation becomes effortful or problematic as when "incoming information reaches some hypothetical threshold of discrepancy" (Feldman, 1981, p. 134). Both the controlled and automatic processes eventually assign a person to a category or a specific prototype. The specific category is a function of the context, as well as the salience of particular categories and specific characteristics. In addition, some judges have more probable prototypes, categories and salient stimuli features.

In summary, Feldman contends that people classify other people in much the same way as they classify all information in the world around them. These classifications then allow the judge to infer unknown information about a person. These categories are relatively stable, but can change if the judge recognizes sufficient discrepancy between the classification and any new information.

Implications from Performance Appraisal

Chapter Four reports extensive evidence which originated with the teacher's comments about children. It was evident that most teacher judgments were relatively stable across the two month study period and that the use of performance classification led the teacher to infer additional information about each child. Characteristics of Feldman's (1981) description of the interpersonal judgment process were considered in analysis of this evidence as described in Chapter Six.

Summary of Chapter Two

This chapter has reiterated that the question of this study "What constitutes communicative competence in kindergarten?" was investigated according to three conceptual bases. Three diverse bases, sociogenesis of language and thought as represented in adult-child tutoring, standardized measures of language, and teacher judgment of communicative competence, were supported by citations of pertinent literature.

The first conceptual base to be explored referred to the works of Vygotsky, Wertsch, Bruner, and Cazden. Vygotsky's contributions, were the concepts of sociogenesis of language and cognition and zone of proximal development. Wertsch's stages of independent thought were an extension of the zone of proximal development as was the description by Wood, Bruner and Ross regarding the role of the adult in scaffolding. It remained for Cazden to apply these ideas to the classroom context, stating that the performance of the teacher is based on the principles stated by Vygotsky, which she summarized as performance before competence.

The standardized measurement of language actually had its roots in the early intelligence tests, but became specialized in the area of language measurement. These tests have been developed to measure specific skills, specific populations and general language achievement, but many fail to meet basic psychometric criteria. The interpretation of all test scores is ostensibly tempered by clinical judgment. Another standardized procedure involves structural analysis of the linguistic forms in a child's language. Several protocols have been developed to conduct this analysis; most recently micro-computer programs have been used.

The third conceptual orientation in this review rested on the reconstitutive ethnography processes of Mehan and the interpersonal judgment statements by Feldman. The combination of these positions suggested the process by which the teachers reach judgments about children and methods by which teachers can be interviewed to ascertain the components of these processes.

As a result of this review of literature the challenge became the application of research methodologies that reflect all three of these conceptual orientations and then the organization of the resultant evidence to achieve a conceptual integration.

CHAPTER THREE: Procedures

Introduction

The aim of this research was to advance the understanding of communicative competence as evidenced by kindergarten children. Central to its development has been the inclusion of diverse conceptual bases from which to develop an integrative perspective on child language. Chapter Two described the three conceptual perspectives selected as promising contributors to this integration: sociogenesis of language and thought in adult-child tutoring, standardized measures of language, and teacher judgment of communicative competence.

The specific procedures used to obtain evidence consistent with these perspectives will be described in this chapter. Briefly, each perspective is reflected in a specific procedural component. The processes of adult-child tutoring were studied through evidence obtained from the Picture Association sub-test of the iskey-Nebraska Test of Learning Aptitude[1] (Hiskey, 1966). The Hiskey-Nebraska was administered under two conditions: 1) as specified in the manual, and 2) with coaching. The second conceptual perspective, standardized measurement, was represented by the Grammatic Understanding and Oral Vocabulary sub-tests of the Test of Language Development[2] (TOLD) (Newcomer & Hammill, 1977) as well as the Boehm Test of Basic Concepts[3] (Boehm, 1967). An additional standardized procedure involved a language sample, obtained from each child during a story-retelling activity. The transcript of each sample was then analyzed for specific linguistic characteristics by the micro-computer program Lingquest[4] (Mordecai, Palin, & Palmer, 1982).

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[1] Referred to as Hiskey-Nebraska
[2] Referred to as TOLD
[3] Referred to as BTBC
[4] Referred to as Lingquest

This also corresponded to the perspective of standardized measurement. The third conceptual perspective, teacher judgment, was represented by teacher interviews which were conducted according to the reconstitutive ethnography techniques described by Mehan (1979a). These three perspectives and their respective procedures assured broadly based evidence.

This study began with an etic hypothesis that three conceptual perspectives would provide evidence for an integrative statement. This became an emic process of verifying, eliminating and revising the first etic statements according to the evidence obtained in the kindergarten context. A third stage, the development of new etic hypotheses, produced concluding statements based on the integration of the three conceptual perspectives. This chapter will detail the procedures for all three stages.

Description of Subjects and Initial Organization

This study included sixteen children from one morning kindergarten class in a northwest Edmonton school. The school served children from middle and lower socioeconomic class households. Due to the prevalent economic conditions of the neighborhood, the kindergarten had been designated as a disadvantaged kindergarten by Edmonton Public School Board. The category disadvantaged implies that for some children early education includes a compensatory emphasis. The 7 girls and 9 boys in the class ranged in age from 4 years 10 months to 5 years 11 months. To the researcher this class typified a "real world" kindergarten in which oral language development is a critical consideration. Furthermore it is likely in such a kindergarten that few of the children have highly developed verbal skills as found in some higher socio-economic areas, and that some children have normal language-learning abilities constrained by limited life experiences.

The teacher of this classroom had taught grade one and kindergarten in the study school for over 20 years. In addition to having extensive classroom experience she had recurrently participated in courses and in-service programs. The year previous to the study the teacher had participated in a teacher effectiveness program organized by the school district. Consequently, this teacher was considered to have the critical combination of current theoretical information and well-developed subjective norms regarding typical child performance in this specific kindergarten. That is, she was selected as a teacher who might "know", who might have developed valid strategies for judging children's communicative competence and be able to objectify these strategies.

The study was begun by obtaining permission from the teacher, principal and central administration of the school district. Then the researcher attended a parents' meeting to explain the study to the parent group. Following this, individual permission forms were sent to each family to obtain clearance for video recording. The study was begun October 1, 1984 and continued for a 10 week period, concluding December 5, 1984.

Obtaining Evidence

To assure that the evidence obtained reflected the diversity of conceptual bases identified earlier, each orientation was represented by specific procedures. In the following section the specific procedures will be described; the methods used in organizing the evidence from each procedure will be addressed in a subsequent section. To explain the sequence of procedures and their relationship within the study period, a time line is provided in Figure I.

Figure I

Time Line of Study

Week 1: Boehm Test of Basic Concept Form A Picture Association sub-test from Hiskey Nebraska	In-class video taping Viewing & discussion
Week 2: Picture Association sub-test continued Oral Vocabulary & Grammatic Understanding: sub-test of TOLD	In-class video taping Viewing & discussion
Week 3: TOLD sub-tests continued Story re-telling	In-class video taping Viewing & discussion
Week 4: Story re-telling continued	In-class video taping Viewing & discussion
Week 5:	In-class video taping Viewing & discussion
Week 6:	In-class video taping Viewing & discussion
Week 7:	In-class video taping Viewing & discussion
Week 8:	In-class video taping Viewing & discussion
Week 9: Boehm Test of Basic Concepts, Form B	
Week 10: Picture Association Sub-test of Hiskey Nebraska	

Standardized Measurement of Language

The standardized measurement approach included three components: 1) the Boehm Test of Basic Concepts, 2) the Grammatic Understanding and Oral Vocabulary sub-tests of the TOLD, and 3) a structural analysis of a sample of the child's language.

Boehm Test of Basic Concepts

The first test administered to the children was the Boehm Test of Basic Concepts, Form A. This was first in order to provide maximum time between the two forms of that test and allow a more comfortable introduction to formalized testing for the children. Since the BTBC can be administered in a group context, small groups of children completed this test in the play and crafts room adjoining the kindergarten, a room with which they were already familiar.

Following completion of the BTBC, the Picture Association sub-test of the Hiskey-Nebraska Test of Learning Aptitude was administered. This will be described in the section Testing with Tutoring.

Test of Language Development:

After the completion of the BTBC and the Picture Association sub-test, the two measures included at both the beginning and end of the study, two subtests from the Test of Language Development were administered to each child individually. For these sub-tests, Oral Vocabulary and Grammatic Understanding, the examiner followed the procedures in the test manual. The Oral Vocabulary sub-test requires the child to provide definitions for words, e.g. "Tell me what 'forest' means." Each child's responses were tape recorded and also noted on the test form. The

Grammatic Understanding sub-test, which requires the child to point to pictures in response to the examiner's question, e.g. "Show me 'she sat in the middle'" was scored in situ.

Story Re-telling

The story re-telling activity centered around the picture book Honey Bear (Hoban, 1974). This book was chosen because Hoban's books are popular with young children and because this story includes families, toys, friends, etc. which are in the experience of most children. In addition, the book, unlike classic children's stories, was probably new to all the children, so they would not have had previous experience with the text. Furthermore, because the book had a relatively concrete story line supported by attractive drawings and also had inferred information central to the plot, it allowed comprehension at several conceptual levels.

Initially, this book was read to all the children during class story time the week before the collection of the language sample. Before obtaining a language sample the story was read a second time to each child individually. During this second reading the child sat next to the examiner so he/she could see the illustrations on each page as the text was being read aloud. The text was read with verbal expression etc. as in story telling, but no additional explanations were offered. After the story telling was completed the book was reopened to the beginning and the child was asked to re-tell the story. Children were given assistance in turning the book's pages, and in the few instances when the child specifically asked, e.g. "What's his name again?" specific character names were provided. Children who were trying to remember the story word for word, were reinstructed

-- "just tell me the ideas you remember". Other than these instances, specific assistance was not provided. All conversation during the re-telling process was tape recorded.

Testing with Tutoring

To select an activity for the tutoring component, materials were reviewed to assure that they included manipulative materials and a range of conceptual levels. These were selected by two criteria. First, since in the zone of proximal development a child should perform at a higher level with assistance than without assistance, the activities needed to increase in difficulty to display improved performance. Second, since information about the tutoring process is typically obtained by observing a child's manipulation of materials in response to verbal instructions, manipulative materials were required.

For a similar purpose, Feurstein (1979) used Raven's Progressive Matrices (1958). However, the norms for these matrices begin at age six years and thus are inappropriate for kindergarten children. However, a comparable test involving visual analogies was identified in the Picture Association sub-test of the Hiskey-Nebraska Test of Learning Aptitude. The normative scores on this subtest range from three years to twelve years and six months. It consists of a booklet composed of fourteen stimulus cards each including two pictures and a blank space. For each item four additional picture cards, the response choices, are presented to the child in a controlled order. The requirement for the child is to consider the two stimulus pictures, identify the critical commonality, select the card which shares this commonality and place that card in the blank. The test items increase in difficulty; the first card requires a simple matching of pictures, but the last requires the identification of the amphibian commonality between the stimulus cards and the selection of a third amphibian. A summary of all test items is included in Chapter Four.

The Picture Association sub-test was administered individually to children in a quiet classroom. At first the test was administered to each child according to the directions in the test manual. For all children, the examiner verbalized the rationale for the correct choice on the first three items. e.g. "Yes, you had to choose another bear." After the child had completed all items or had achieved ceiling, five incorrect responses in a row, the examiner returned to the last correctly answered item prior to the first incorrect response. This was introduced by explaining that the child had completed that item correctly "and let's look at it again". The item was completed again but with the examiner describing the child's actions, e.g. "you knew that both banana and apple were fruit, so you had to choose another fruit. You were right, you chose pear because it is another fruit."

After reviewing this item, each set that had elicited an error initially was presented once again and the child was coached to obtain the correct response. Tutoring was spontaneous and relied on the cues the child provided regarding the specific difficulty each item presented. Although the support the adult provided was in response to the child's performance, the adult was also constrained in two ways. First, all guidance was directed toward the critical process or concept; hints like:

"it's the one on my side", or

"it's one that goes meow

were not allowed. Furthermore, the examiner could not provide the correct answer directly, e.g.

"Choose the wagon".

The role of the examiner was to follow the child's processing as much as possible, providing critical information, pointing out salient differences, guiding the sequence of processing, and reinstructing regarding purposes etc., whenever the child seemed to need this help. This process was completed for all items that the child missed during the standardized administration and then continued until the child missed five successive items. Thus during the tutoring phase children could receive coaching on items which were above their ceiling from the standardized administration. All dialogue during the coaching process was tape recorded.

This procedure provided some of the most provocative evidence of the study, but it also introduced one of the greatest limitations. First, the dialogue between the adult and child demonstrated many of the characteristics of the zone of proximal development and scaffolding. Second, the ceiling of the test, a chronological age of 12 years 6 months, was easy for many children to attain with coaching. The scores of all children with 13 or 14 correct responses were probably limited by this ceiling effect. Thus the range of scores obtained in this test was unduly depressed. A more adequate measure would have shown far greater diversity in the upper range of scores.

Video Taping and Discussion

One day each week the researcher and a cameraman brought video equipment to the playroom adjoining the regular kindergarten classroom. This room was typically used by the kindergarten for crafts, snacks, and play time, so the children were familiar with the use of the room without the video equipment. One half of the class at a time came into the room; the other half participated in other activities in the regular classroom with a teacher aide. The composition of each group varied according to a range of factors related to the kindergarten program. For example one time all those who had finished their dough art came first, another time the twins were purposely separated to see how well they would play alone, a third time Jeanine and Rory were in separate groups due to the demands of the activity and their need for teacher assistance. In summary, the children were grouped somewhat differently for each taping session but the differences were "real world" variations and unlikely to have systematically affected the children's performances.

During the first five video taping sessions the children were involved in self-directed play in the playhouse and block corner with access to other construction toys and a play car. The teacher was available as an observer or facilitator. During the last three sessions the teacher led the group in typical lessons. The sixth taping involved a group lesson on classifying objects as belonging in a hardware store or a pet store and then cutting and pasting the objects onto the corresponding page. The seventh was a group activity on sequencing pictures to make a story and the eighth, a group discussion of historical Indian life.

During the first session the cameraman was instructed to film children talking. It became clear, however, that since some children did the majority of talking, this would not provide balanced information over the eight week period. Consequently, each week the cameraman was instructed to film all the children but emphasize three specific children within each group, six children per morning of filming. Specific children were selected by the teacher and researcher until evidence on all children had been obtained.

Each week the researcher and teacher viewed the video tape for that week in the school's audio-visual room. The viewing of one tape always preceded the subsequent taping session. An audio tape recorder was placed between the teacher and researcher during these viewings and all comments were audio taped.

A turning point of the entire research occurred during the first viewing. The teacher was asked to identify evidence of language competence. The researcher anticipated that some of the teacher's references would include traditional language descriptors such as vocabulary, sentence length, etc.. This did not occur. In fact, it became evident that for the first few minutes the researcher was waiting for the teacher to address the topic of language competence, and the teacher was addressing that topic -- from a different perspective. During the third interview, the researcher stated this to the teacher,

Researcher: It seems to me when I ask you about language, I'm asking the wrong question. It seems to me the question is "how come they're being successful in what they're doing?' Cause for some of them language is part of it and,

Teacher: for some it isn't.

Researcher: It's the other way. Maybe I'm asking 'what looks like a competent block player.'

Given that the purpose of this approach was to learn what the teacher "knew" about the language competence of children, forcing the teacher's perceptions into the researcher's expectations would have nullified the value of the interviews. Thus, the researcher abandoned this potentially distorting approach and tried to capture the teacher's perspective in viewing the children's performance. This immediately foregrounded the teacher's perspective as a "lense" for viewing many aspects of the evidence, and thus had a major impact on subsequent analyses of evidence.

At times the researcher became a participant in the process, posing questions and providing information. The nature of the information, however, was controlled. The researcher provided information about families, children's likes and dislikes etc. discovered during individual testing, but did not provide information regarding test scores and measurement results. For example the researcher would tell the teacher that Dirk had a step-sister in another city whom he enjoyed seeing but would not explain that Dirk scored higher on the tests than did the other children.

Final Testing

During the last two weeks of the study the BTBC and the Hiskey-Nebraska sub-test were re-administered. For the BTBC the alternate form, Form B, was used. However, for the sub-test there was no difference in material or administration; once again the standardized administration was followed by the administration of missed items accompanied by coaching.

Analyzing and Organizing Evidence

Scoring, Transcribing and Computer Analyzing

Initially all tests were scored and normative data from the respective manuals were obtained. The Oral Vocabulary sub-test of the TOLD was scored with reference to the tape recordings as needed. All other tape recordings, i.e. the teacher-researcher conversations regarding video-tapes, the children re-telling the story from the picture book, and the coaching sessions of the Hiskey-Nebraska were transcribed. Transcripts from the story re-telling were entered into an Apple IIe micro-computer for processing by the Lingquest program.

Organization of Evidence

The first integration of this extensive evidence was chosen as a parallel to the focal point of natural integration -- the individual child. Consequently each individual's information across procedural perspectives was organized in a case study format. The first entries, the scores for all quantifiable measures, were stated in tabular form. Then each child's transcripts from the Picture Association sub-tests were reviewed to identify patterns of errors, apparent processes and responses. These were summarized, and, in some cases, examples were selected to illustrate the child's performance. Another source of information, the transcripts of the teacher-researcher interviews, was indexed and all references were summarized in a child-by-child format. During this process another researcher familiar with the study listened to a sample of tapes to assure the reliability of the judgments. All sources of evidence were considered until the significant information on each child had been captured in tabular or textual form.

After the information for each child was compiled, the transcripts of the teacher-researcher conversations were reviewed for teacher statements of general importance. These remarks, which were summarized, were in addition to those about specific children. They principally related to the kindergarten program and the development of children in general. In addition, the researcher contributed a brief statement of contextual information not furnished by other sources.

Summaries and Concluding Statements

To organize the evidence from standardized measurement, each procedure was summarized in two ways. First, all scores which had been stated in individual tables were organized in graph form, providing a summary of each set of scores across the class. Then this summary of scores and the textual statements about each child were considered in compiling an inventory of performance characteristics which had been identified as indicating competence. In addition to this evidence from children, a second summary, evidence from context, was developed. This contextual emphasis included general statements from the teacher and additional observations by the researcher.

Both summaries, evidence from children and evidence from context, provided the foundation for Chapter Five in which all important evidence was integrated to form definitive statements. This process corresponded to the method described by Mehan (1979a) as developing provisional analytic schemes into a set of recursive rules so that "the result is an integrated, precise model that comprehensively describes a specific phenomena, instead of a simple correlational statement about antecedent and consequent conditions" (p. 21).

These eventual statements maintained a focus which originated during the first viewing of the video tape when it became obvious that the researcher and teacher had very different views of language competence. At that point, when the researcher tried to disregard previously used constructs to better understand the teacher's frame of reference, this shift provided the perspective for subsequent conclusions. Each additional consideration led to revision and the resultant statements were verified by comparison to research evidence and related literature. These statements are reported in Chapter Five.

Summary of Procedures

To assure the requisite broad conceptual base for an integrated perspective, three conceptual orientations were selected from relevant literature. From each of these an evidence-gathering approach was selected. The adult-child tutoring included during administration of the Picture Association sub-test of the Hiskey-Nebraska Test of Learning Aptitude represented the sociogenesis of language and thought. The standardized measurement component was provided through the Grammatic Understanding and Oral Vocabulary sub-tests of the Test of Language Development, the Boehm Test of Basic Concepts, and structural analysis of individual language samples obtained during story re-telling.

The process of involving the teacher during a joint viewing of in-class videotapes corresponded directly to the reconstitutive ethnographic procedures described by Mehan (1979a) and allowed application of interpersonal judgment considerations as suggested by Feldman (1981). Additional information about the kindergarten context and the components of competence were also compiled.

Summary of Chapter Three

The first step in integrating the extensive evidence was to summarize the information as it co-occurred in each child. This was followed by a comparable summary across all individuals; at this point integrative relationships were identified. Throughout this analysis the teacher's perspective served as a "lense" through which to view other information; a set of integrative conclusions resulted. From these conclusions subsequent areas of application and investigation were detailed.

CHAPTER FOUR: Presentation and Analysis of Evidence

Introduction

The procedures used in this study included both standardized and non-standardized procedures which contributed diverse quantitative and qualitative evidence. In this chapter the extensive information has been arranged in a specific to abstract sequence. More importantly, the concentration on integration begins here -- integrating the evidence in a way that parallels the "real world" -- integration by the individual child.

Consequently this chapter begins with information regarding each specific child's performance, which is presented in a case study, child by child format. Moving progressively to more general statements, the specific individual descriptions are summarized: the quantitative measures in graph form, the observations in text. This summary will be followed in Chapter Five by a summary of information from the kindergarten context: the beliefs of the teacher and the contributions and constraints of the kindergarten milieu. These two chapters of evidence provide the foundation for the conclusions from this study, which will be presented in Chapter Six.

Specific Information Regarding Each Child

Format of Presentation

The sequence of presentation for this section corresponds to the teacher's rank ordering of the children on the basis of language skills. The teacher attempted to predict the respective order of the children on standardized tests of language by ranking the children from strongest to weakest in language abilities. By using her predictions, similarities and contrasts between teacher judgement and test scores became more explicit. For each child the standardized test scores are presented in tabular form and the descriptive information from observation and teacher interview follows. Chronological ages were computed as of October 1, 1984 and are stated as rounded to the nearest month. Also, because many interpretive statements refer to specific test items of the Picture Association sub-test a summary of the specific test items is included in Figure II.

Figure II

Summary of Picture Association Sub-test of Hiskey-Nebraska Test of Learning Aptitude. (Hiskey, 1966)

No:	Stimulus Cards:	Correct Response	Foils:
1	toy bear, toy bear	toy bear	roller skate, horse, ball
2	scooter, tricycle	wagon	chicks, donkey, hat,
3	violin, drum	trumpet	rubber ball, baseball, top
4	teepee, house	tent	helicopter, truck, park bench
5	apple, banana	pear	carrot, potato, milk,
6	horse, pig	sheep	tiger, lion, bear

7	chair, park bench	rocking chair	bed, table, hammock,
8	ear, nose	eye	foot, leg, hand,
9	airplane, duck	kite	deer, train, car,
10	violin, harp	guitar	trumpet, drum, harmonica
11	crow, hawk	eagle	turkey, duck, chicken
12	ax, saw	ax	screwdriver, hammer, mallet
13	pencil, pen	typewriter	book, scissors, awl
14	frog, turtle	alligator	whale, eel, fish

1. ADAM: C.A. 5 years 6 months

Figure III

Scores: Adam

	Raw Score	Age Equivalent
TOLD		
Oral Vocabulary	14	8y 3mo
Grammatic Understanding	10	4y 0mo
Lingquest		
Mean Length Utterance	8.52	
Total Words	392	

Total Different Words	144	
Type-Token Ratio	.36	
		Percentile
Boehm Test of Basic Concepts		
Form A Oct.	37	70
Form B Nov.	37	70
	Raw Score	**Age Equivalent**
Hiskey Nebraska Tutoring		
October		
Standardized Admin.	8	5y 0mo
With Coaching	14	12y 6mo
Difference:	6	7y 6mo
November		
Standardized Admin.	9	5y 6mo
With Coaching	13	10y 6mo
Difference:	4	5y

Observations From Coaching

The adult's tutoring role with Adam was one of sustaining direction rather than correcting his processing. One interesting example involved Adam's unwillingness to place a "mean" bird with the other "mean" birds on item 11. Despite the researcher's attempts to re-direct, he persisted in placing a chicken card with predatory birds. When it seemed evident that this was a deliberate departure from the correct response, he was asked which bird he would select if he were to choose a mean bird. He pointed to the eagle, the correct response, but added again "but, I don't like mean birds". Clearly Adam had his own priorities in responding, and avoiding mean birds had precedence over following the procedure of the activity.

In this case the ceiling on the with-coaching score on the second administration limits the value of score comparison. The coaching transcripts for October and November, showed a greater problem-solving efficiency in November. The final test item, which requires the child to identify a third amphibian, resulted in the following dialogue in October:

Examiner: Tell me about those things.

Adam: A frog and a turtle.

Examiner: Where do they live?

Adam: In the water.

Examiner: And sometimes do they come on land?

Adam: Yes.

Examiner: So they live on both land and water? So over here we need something, what?

Adam: The fish.

Examiner: That can live on both?

Adam: Fish can't live out of water.

Examiner: No. We need something that can live on both land and water, right? Let's see if we can find out what lives on both land and water, then. There's a whale, and an alligator and an eel and a fish.

Adam: The alligator cause he lives on land and water.

In November the same item elicited the following:

Examiner: Tell me about these two animals. They do what?

Adam: They go in the water and they come out of the water.

Examiner: Yes. They also go on land because they have feet to go on the land don't they? O.K. Now can you find one that also does that?

Adam: O.K.

Information From Observation

Adam was one of the tallest children in the class. He was the oldest of two children. His mother worked at home, and frequently helped in the kindergarten.

Adam seemed to see himself as a "defender of good". He talked about protecting his little sister from the bad boys in his class, and frequently assumed super-hero roles during free play. For example, at Halloween he donned a cape and could scare off "evil and bad ghostes". As Christmas neared he talked excitedly about all the Go-bot toys available and explained to the researcher that with all that video equipment she could now rent super-hero video tapes to watch.

Initially Adam reacted to the video taping and held things in front of his face during block play, but this did not occur subsequently. During some sessions he was noted as playing well with Rory, a less capable child. This was seen as a demonstration of friendliness by Adam as well as being advantageous for Rory. The teacher remarked, "I think Rory will benefit the most with a child like this who has a little more on the ball than he does". A specific example was the two of them pretending to kick over a tower of blocks but always missing contact with the blocks. The teacher saw this as a good example of play acting and a good way to demonstrate aggression.

In group activities Adam performed well without adult support. He responded often and confidently to teacher-initiated questions and was typically correct. Both the teacher and researcher assumed that Adam often knew information even though he did not respond to the question.

2. BRYAN: C.A. 5 years 11 months

Figure IV

Scores: Bryan

	Raw Score	Age Equiv.
TOLD		
Oral Vocabulary	11	7y 6mo
Grammatic Understanding	14	5y 6mo
		Percentile
Boehm Test of Basic Concepts		
Form A Oct.	39	80
Form B Nov.	38	75
Lingquest		
Mean Length Utterance	6.67	
Total Words	420	
Total Different Words	173	
Type Token ratio	.41	
	Raw Score	**Age Equiv.**
October		
Standardized Admin:	10	6y 0mo.
With Coaching	13	10y 6mo.
Difference:	3	4y 6mo.
November		
Standardized Admin.	13	10y 6mo.

With coaching	14	12y 6mo.
Difference:	1	2y

Observations From Coaching

During both experiences with the picture association procedures Bryan seemed totally aware of the nature of the task. He needed no reminders to identify what the stimulus pictures had in common. He responded especially promptly and accurately to cloze procedure clues from the examiner.

Bryan: That's a frog and that's a turtle.

Examiner: And where do they live?

Bryan: In water.

Examiner: And on

Bryan: Grass

At times he would verbalize his rationale for his choice, and those would be correct.

Bryan: Needs something that writes. This would write because it has a thing on the end of it that makes it write something on the paper. So that would go there.

Generally Bryan worked eagerly in the one-to-one context. He found all the tasks reasonably easy and thus not frustrating. It is very likely that a ceiling effect was present on all Hiskey Nebraska tasks. Thus all scores on the Picture Association sub-test are conservative estimates of his actual abilities.

Information From Observation

Bryan was a small, quick-moving boy who entered the study school in September and had been placed in grade one despite his previous teacher's recommendation that he complete a second kindergarten experience. After repeated difficulty in grade one he had been reassigned to kindergarten in the morning and grade one in the afternoon which was this school's typical format for providing a second kindergarten experience. Bryan's anger at any restrictions and his apparently unprovoked aggressiveness toward other children were seen as his major difficulties in school.

From the outset Bryan was a recurrent topic while the teacher and researcher viewed the videotapes. Described once as "Bryan the brat" he was the class nuisance. He tried to avoid following instructions he disliked and did not play cooperatively with other children. He typically chose either to play alone or to disrupt the play of others. For these reasons, the teacher's attention during October was frequently directed toward understanding, controlling and improving Bryan's behavior.

From the outset the video tape provided evidence of Bryan's aggression, eliciting comments as:

Teacher: Here comes Bryan.

Researcher: I think he just hit Annette.

The video recordings also showed other children complaining of Bryan hitting them or disrupting their block building.

By the first tape, however, the teacher expected that Bryan's behavior could be modified. She felt that placing the child in grade one and then moving him back to kindergarten was "a mean thing to do to a kid".

From time to time Bryan displayed cooperative behavior. Sometimes he tried to persuade another child to let him have something. At other times he wanted the teacher to find specific toys for him to accommodate a project he was planning. For example, when the teacher was able to find a bag of small cars for him, he happily played alone for quite a while. He put the cars back into the bag and discontinued his project when play time was over without incident.

At more difficult times, however, Bryan seemed to "stir" through everyone's play, attempting to disrupt it. During costumed play the week before Halloween he wore a witch's hat and cape, but rather than play-acting his anger he moved through the group punching or elbowing children when he had the opportunity. Alternatively he would play by himself in the middle of the group's activity as if oblivious to other's play.

Toward the end of October, the teacher learned of two factors which helped explain Bryan's behavior. First, the family had been disrupted and Bryan had been allowed to operate without limits. Second, the school nurse confirmed that Bryan failed the vision screening; this provided a possible explanation for his exceptional difficulty in learning to read when in grade one. At this point the teacher saw Bryan as particularly needing success in playing with other children.

Recurrently Bryan seemed to have no skills in negotiating with others either to obtain materials or to develop a shared story line for play. At times he would play cooperatively but this would soon involve a confrontation. One of the challenges for the teacher was to alter Bryan's outbursts before the other children had categorized him as a trouble-maker and excluded him. Although the children were clearly wary and sometimes even frightened of him, they seemed to see his outbursts as possible but not inevitable. The teacher reported that during previous years children had acquired school-wide reputations for being difficult. When such a reputation became stablized, the child had little chance of being perceived in any other way. Avoiding this for Bryan was an important factor in changing his behavior.

The teacher's perception was summarized in her statement "You know so often you wonder why these kids act like they do. When you start hearing what's happened to them in the past then you start to say 'Well, it makes sense'". This understanding as well as progress in helping Bryan play with others provided a different focus for the teacher's concerns. She expected to see improvement as the result of the kindergarten experience, but would seek consultant help if the progress she expected did not occur.

At one point Bryan attended day care in the morning and kindergarten in the afternoon. He cooperated well during that afternoon, but the arrangement was discontinued because his mother was unwilling to agree to this change from attending grade one.

During concept-oriented group work Bryan once again demonstrated understanding of the content but an unwillingness to take a turn to respond. When asked, he gave the correct answer, but when the teacher did not respond to his raised hand he expressed frustration because "I knew that, too". During these discussions he showed particular ability in providing correct responses quickly and summarizing statements that captured the central concept. These activities supported the belief that Bryan's school difficulties were not related to limited mental abilities. It was conjectured that formal testing would yield an above average I.Q. score.

3. KERRI C.A. 5 years 7 months

Figure V

Scores: Kerri

	Raw Score	Age Equiv.
TOLD		
Oral Vocabulary	9	6y 3mo.
Grammatic Understanding	20	8y 9mo.
Lingquest		
Mean Length Utterance	5.54	
Total Words	360	
Total Different Words	160	
Type-Token Ratio	.44	
		Percentile
Boehm Test of Basic Concepts		
Form A Oct.	42	90
Form B Nov.	45	97
	Raw Score	**Age Equivalent**
Hiskey Nebraska Tutoring:		
October		

Standardized Admin.	10	6y 0mo.
With Coaching	14	12y 6mo.
Difference:	4	6y 6mo.+
November		
Standardized Admin.	11	7y 0mo.
With coaching	13	10y 6mo.
Difference:	2	3y 6mo.

Observations From Coaching

During tutoring Kerri needed a minimum of conceptual support. In the first session she occasionally needed to know what a picture was supposed to depict, but solved the problem immediately when that information was provided. She often verbalized her rationale "I know. A kite. All these three things can fly".

On one card she self-corrected. She had made a judgment not only on the basis of the information but on the premise that the response card could not be the same as a stimuli card. On one test item the response required placing a second axe in the sequence, but Kerri chose a hammer saying "Cause it wouldn't be another axe". When the examiner asked "Do you think mallets cut wood?", Kerri responded "I going to change this card to axe --- cause axe cuts wood".

In the second administration Kerri displayed even greater awareness that the examiner was providing critical clues during the tutoring session. Because corrections were more rapid, she often skipped a reply to the cloze sentence to name the card she had chosen.

Generally Kerri needed very little conceptual support for correct responding. At times she needed to be assured that other rules she was using did not apply, e.g. you never use a matching item in a response. Her responses were rapid and typically accurate. Undoubtedly a ceiling effect was present and thus Kerri's scores were artificially lowered.

Information From Observation

Kerri was a sparkling-eyed average size girl who "loved" kindergarten. No matter what the activity, she was actively and enthusiastically involved. Her mother and the teacher attributed this in part to the fact that she missed kindergarten entry by only five days the year before and thus she was eager to participate now that she was able to attend. At times this enthusiasm may have minimally depressed test results in that she was so eager to hurry back to the classroom to hear the rest of the story etc. that she hurried through tasks.

Kerri's family included a father, a mother who worked as a nurse and a teen-age sister who Kerri said, "Isn't always nice to me, but she loves me anyway".

From the outset Kerri was identified by the teacher as a generally strong student, "one of the better ones" who seemed to have no difficulty and "does everything fine". She was viewed continually as one who entered into an activity and persevered with the work involved in completing what she set out to accomplish. To this end she was seen stopping people who might disrupt her work and cooperating actively with a range of people who shared the project.

Kerri was viewed as a competent language user and showed her abilities in her "way of getting along doing things". Conversely at times her silence was seen as a sign of competence because she wasn't "bothering to waste time talking".

During costumed play before Halloween Kerri demonstrated these abilities more dramatically. Dressed as a witch, she continued to sustain the role and story line with such involvement that she seemed oblivious to the presence of the video camera. She improvised the plot as other children assumed a range of roles, appearing to totally enjoy her involvement. It was apparent that she could assume a leadership role or be a follower when another was leading. On another occasion the teacher described this as "Kelly's quite an interesting one in that she takes over and leads, and yet she's not bossy. Well, yes, I guess she is at times. But she can do it in a quiet way quite often, too".

Kerri frequently played with Amelia, another quite competent child in the class. The one day when the girls were grouped separately, Kerri tended to play more by herself, not joining the more active boys' play or that of the two girls who typically played at a less complex level. A parallel to this was noted later when Kerri and Amelia excluded Cleo from their play not because Cleo was unwelcome but rather because they were developing their play themes rapidly and Cleo was unable to respond quickly enough to enter into the process.

Kerri rarely entered into inappropriate play. The one time she did join in throwing pretend food boxes across the partition the teacher and examiner described this as "even Kerri is throwing".

4. DIRK: 5 years 4 months

Figure VI

Scores: Dirk

	Raw Score	Age Equiv.
TOLD		
Oral Vocabulary	16	8y 3mo.+
Grammatic Understanding	21	8y 9mo.
		Percentile
Boehm Test of Basic Concepts		
Form A Oct.	45	97
Form B Nov.	47	99
Lingquest*		
Mean Length Utterance	9.32	
Total Words	438	
Total Different Words	162	
Type/Token Ratio	.36	

*Dirk contributed more oral language in this task than a Lingquest file can analyze. Thus, for Dirk this analysis was based on the first 438 words.

	Raw Score	Age Equiv.
Hiskey-Nebraska tutoring:		
October		

Standardized Admin.	12	8y 6mo.
With Coaching	14	12y 6mo.
Difference	2	4y
November		
Standardized Admin.	12	8y 6mo.
With Coaching	14	12y 6mo.
Difference:	2	4y

Observations From Coaching

During the tutoring sessions Dirk's scores were decidedly depressed by the ceiling effect. During the first tutoring session he demonstrated facility with the task. When the two errors he made the first time were the focus for tutoring he followed the reasoning process, answered all cloze sentences immediately and apparently needed two facts from the examiner. In one item he needed to know to attend to the sub-group strings among the instruments; in the second he needed to know the function of an awl. The implications from this information appeared to be understood immediately by Dirk. During the second tutoring his errors were two different items than in the first tutoring, but the same efficiency was evident.

Information From Observation

Dirk was a mid to large sized child who moved about the room quietly, observing and entering into some activities. He was an only child. His mother was working fulltime and his father was at home awaiting surgery for an injury. The father came to school often, entering into play on the days he helped in the kindergarten, giving other children rides home on cold days, and, on one occasion, re-gluing the sole of Cleo's shoe. In conversation with the researcher, the father explained that he was very proud of Dirk's abilities in the woods, especially his ability to call crows and deer so the animals would actually approach.

At the outset the teacher's comments captured how difficult it was to be aware of Dirk's abilities. The following excerpts from the first day of viewing capture the teacher's position:

> He is very quiet. He's the kind of kid you lose in a classroom. You don't really become aware of him ... . He's the kind of kid that goes unnoticed. ... We have to watch those quiet kids because you often do miss them.

Typically Dirk played with other children, but very quietly and in either a follower or autonomous role, seldom if ever leading. During one play session with Lance, the teacher and researcher were unable to identify any type of communication between the two boys although they were cooperatively building a block structure. It was uncertain whether there was some communication not identifiable on tape or whether Dirk was being very accurate in anticipating and predicting Lance's plans for the structure.

On another occasion after watching Dirk pretend to be a dog for the dog house, the teacher commented "here's Dirk, another very shy boy". Several weeks later Dirk was heard talking while playing cooperatively with Bryan. This conversation, notable both because Dirk talked and Bryan played cooperatively, was observed carefully when the tape was reviewed.

Positive interaction with Dirk's father, as described above, helped the teacher predict that Dirk was a capable child. This plus his quiet success in group activities provided the initial suggestion that he might be among the more capable. After a month of taping, the teacher had identified that Dirk would have been able to contribute a great deal to classroom discussions had he chosen to volunteer. In a beginning to read exercise, Dirk was recognizing letter-sound combinations correctly and providing correct responses that were still difficult for most of the children. The fact that his rate of completing cutting and pasting projects was about average for the group was interpreted not as being a sign of slower motor coordination but as an effort to complete things correctly. This awareness was captured in the following:

Researcher: How are Dirk's motor skills? He's not just whizzing through it.

Teacher: But they're not poor ...... extremely slow but a perfectionist. It's done just so.

One of the interesting examples of Dirk's apparent meta-cognitive awareness occurred during an activity in which he was listing items of the category, food. He said, "noodles, macaroni. They're two parts of the same group, right?". Later when listing toys he inserted "I'm getting ideas from here" (the playroom). It seemed that Dirk was not only a very competent language user but also was developing a meta-linguistic awareness of these processes.

Interestingly, in rating children the teacher and examiner varied the most in rating Dirk. While the teacher rated him among the more capable children, the examiner would have rated him markedly above all children in the room. One reason for this was obvious. The examiner had seen Dirk's high test scores; the teacher had not. The other reason, however, was probably that Dirk was not as socially, verbally interactive during play etc. as were the other children whom the teacher ranked slightly higher.

5. AMELIA: C.A. 5 years 6 months

Figure VII

Scores: Amelia

		Age Equiv.
TOLD		
Oral Vocabulary	8	5y 7mo.
Grammatic Understanding	15	5y 9mo.
Lingquest		
Mean Length Utterance	7.82	
Total Words	430	
Total Different Words	176	
Type-Token Ratio	.40	
		Percentile
Boehm Test of Basic Concepts		
Form A Oct.	45	97

Form B Nov.	47	99
	Raw Score	**Age Equiv.**
Hiskey-Nebraska Tutoring		
October		
Standardized Admin.	8	5y 0mo.
With Tutoring:	13	10y 6mo.
Difference:	5	5y 6mo.
November		
Standardized Admin.	11	7y 0mo.
With Tutoring	13	10y 6mo.
Difference:	2	3y 6mo

Observations From Coaching

Amelia's results were probably depressed by the ceiling effect. During the initial tutoring she required reinstruction to 1) select an item which "is the same as" instead of "goes with", and 2) focus on the sub-type of birds, mean birds. Toward the end Amelia was being more responsive to cloze-type assistance. It appeared that in this context her confidence in the accuracy of her responses interfered with her ability to benefit from examiner cues. That is, the examiner had to reiterate the re-direction because Amelia tended to persist with her previous problem-solving assumptions.

In the second tutoring the previous pattern remained evident. The three items missed were also missed the first time. Again the examiner reiterated the central concept as if to re-direct Amelia's attention to the critical differences. A major difference between the two administrations was that the second time Amelia was unwilling to abandon the choice of book in the group of things that write.

Information From Observation

Amelia was the older of two girls in a family. Her mother, a full-time homemaker, frequently helped in the kindergarten. Amelia was an average to tall, confident-acting child. She observed new occurrences analytically and perhaps a bit guardedly but soon entered activities willingly. She seemed to view herself as competent and to have confidence in her judgments.

From the outset Amelia was viewed as a child who "usually has a bit to say". Her talking during play, especially to her frequent partner Kerri, was purposeful rather than "chatty". Amelia was frequently the leader and was assertive in a generally effective way. When she gained the much-coveted role of driver of the play car, the teacher remarked "I wasn't surprised she was driving. She could get away with it."

Amelia usually played with Kerri, and this was seen as two children operating at the same level of maturity, enjoying the activities and each other's company. Although Amelia was the more overt leader, they seemed to play cooperatively and negotiate the story line of the unfolding plot. When playing the role of a salesperson, Amelia's shift of speech register was evident and led the teacher to remark "They've picked up the way people in stores talk, haven't they?"

One of Amelia's more notable characteristics was her ability to deter interference from Rory and Bryan. With one hand on her hip and her eyes flashing she would stand erect and tell them a firm "no" -- sometimes supporting this with a clenched fist or an extended hand with the palm outward. Her confidence and assertiveness were both seen as evidence of maturity by the teacher: "It's amazing how those more mature kids are able to handle that and not haul off and hit him (Rory)."

Generally Amelia was willing to play with a range of children. The one evidence of exclusion, as mentioned above, was when Cleo was excluded from play by Kerri and Amelia because Cleo was unable to keep up with the rate of change. These more mature girls did not adapt their play to assure Cleo's inclusion. Although friendly, Amelia was not lacking in the ability to critique. Her response to one child's idea was "That's the most ridiculous thing I've ever heard."

When more pre-academic activities were included in group work, Amelia was one of those who found them interesting and relatively easy. She could cut, paste, match, follow instructions, categorize, regroup etc. as the task required.

Three Sub-categories of Children

In this class of children the teacher and researcher identified three sub-sections within the perceived distribution of abilities. On one end of the continuum were those with limited capabilities who required assistance to complete routine tasks and follow instructions. Near the mid-point were those who seemed to be developing normally but who were not displaying exceptional abilities. The third group were markedly more capable than the others. The students listed above had generally been characterized as being more capable and qualitatively different from the normally developing but somewhat less mature children listed next.

6. CHUCK: C.A. 5 years 0 months

Figure VIII

Scores: Chuck

	Raw Score	Age Equiv.
TOLD		
Oral Vocabulary	11	4y 4mo.
Grammatic Understanding	14	5y 9mo.
		Percentile
Boehm Test of Basic Concepts		
Form A Oct.	32	75
Form B Oct.	35	85
Lingquest		
Mean Length Utterance	6.49	
Total Words	266	
Total Different Words	114	
Type-Token Ratio	.42	
	Raw Score	**Age Equiv.**
Hiskey Nebraska		
October		
Standardized Admin.	8	5y 0mo.

With Coaching	13	10y 6mo.
Difference	5	5y 6mo.
November		
Standardized Admin.	11	7y 0mo.
With coaching	14	12y 6mo.
Difference	3	5y 6mo.

Observations From Coaching

During both procedures Chuck seemed interested and cooperative. He responded well to cloze sentence prompts. When specific information was provided it was to name the harp, focus on the sub-group stringed among the instruments and suggest that frogs and turtles can live on la[illegible] as well as in water. The second administration was similar to the first. Although Chuck seemed to be inefficient in finding the word he wished to use, the word he eventually chose was usually correct.

Information From Observation

Chuck was an enthusiastic, average-sized child. He participated willingly and cooperatively but occasionally needed guidance or specific demonstration before being able to complete activities independently. Since his older sister had been taught by this teacher in kindergarten several years earlier, the mother and teacher often used the older sister's difficulties in kindergarten as a reference point when discussing Chuck. Although Chuck had received prior speech therapy for articulation, his speech was within norms for his age during this project.

Chuck's mother typically worked at home, but during the period of this study she began a part-time job and Chuck entered day care, also in the school building, for the half day his mother was working. In November Chuck changed to afternoon kindergarten so he could be home on the mornings his mother did not work. For this research and on other occasions determined by the mother and teacher, Chuck returned to the morning kindergarten and attended day care in the afternoon.

In general, Chuck was seen as a stronger student than his sister regarding whom "his mother just agonized over whether to put her on or hold her back". The teacher knew that if Chuck had any difficulty, the mother would be concerned and helpful.

At times Chuck was seen as being like Cleo and Anita who were relatively weak students in terms of following directions. It was suspected, however, that he had "a tiny bit more on the ball" than did the other two. The three were alike in that leadership from any of them would be unexpected; they all assumed follower roles.

Chuck was not, however, what the teacher would describe as withdrawn but rather "on the quiet side" .... "He'll talk and contribute things. He's quiet but he's not forceful ... he's not a noisy one but he's not real shy either". As time progressed, Chuck seemed more able to organize his behavior within the group and was seen as "just developing in a normal sort of quiet way". He was seen as "midstream or down lower ... not low to the point that we have to be concerned". The videotaped play sessions showed Chuck as happily involved and not having difficulty playing with other children.

7. DARYL: C.A. 4 years 11 months

Figure IX

Scores: Daryl

	Raw Score	Age Equiv.
TOLD		
Oral Vocabulary	4	4y 4mo.
Grammatic Understanding	11	4y 3mo.
		Percentile
Boehm Test of Basic Concepts		
Form A Oct.	31	45
Form B Nov.	29	35
Lingquest		
Mean Length Utterance	7.69	
Total Words	269	
Total Different Words	116	
Type/Token Ratio	.43	
	Raw Score	**Age Equiv.**
Hiskey Nebraska		
October		
Standardized Admin.	8	5y 0mo.
With Coaching	13	10y 6mo.
Difference	5	5y 6mo.

November		
Standardized Admin.	11	7y 0mo.
With Coaching	13	10y 6mo.
Difference:	2	3y 6mo.

Observations From Coaching

During the picture association tutoring Daryl required conceptual support to obtain correct answers for the items he missed without coaching. He needed prompting to identify the class name for banana and apple, to classify instruments as musical instruments rather than music and to follow two birds with another mean bird instead of a nice one. Even with coaching he seemed unable to understand the amphibian characteristics required for the last item to be correct. In all error items except the fruit he seemed unfamiliar with either the words or the pictures, e.g. the guitar was unfamiliar to him as were the contrasts among the birds.

During the second tutoring session less direct conceptual support was necessary. He attained more correctly without tutoring and responded more promptly to cues than before. Although he missed the amphibian item again he was able to respond to cloze cues.

Examiner: In that square you need something that can live where? Both on water and on __?

Daryl: On the ground.

He was unable to supply the correct writing implement the second time. Like many-other children, although told the awl was "for punching holes in leather" he persisted with that choice.

Information From Observation

Daryl was a peppy, friendly child of average size. He enjoyed free play and participated willingly and cooperatively. In the video tapes Daryl was often noticed when he was bumped and began to cry. Although this occurred twice, he was not seen as a habitual crier. The teacher felt "he's not a whiner, he's not one who is always 'help me', that kind."

Daryl frequently played in the block area with Dirk and Lance, not assuming a leadership role but serving as an enthusiastic participant. Although somewhat quiet like Dirk he was viewed as being within normal ability but less capable than Dirk.

Daryl seemed well accepted by other children and could sometimes gain entry to activities after other children had been denied such entry. One event especially captured Daryl's affable nature. The cameraman reported that during a play session with Halloween costumes Daryl became quite mean, purposely hitting people as if to hurt them. The researcher and teacher were incredulous about such an occurrence and watched the tape for evidence. Mean behavior by a child wearing Daryl's costume was indeed evident, but unknown to the cameraman, Daryl and Bryan had changed costumes off-camera. The behavior was not surprising for Bryan.

8. ASHLEY: C.A. 5 years 3 months

Figure X

Scores: Ashley

	Raw Score	Age Equiv.

TOLD		
Oral Vocabulary	10	5y 9mo.
Grammatic Understanding	11	4y 3mo.
Boehm Test of Basic Concepts		**Percentile**
Form A Oct.	33	50
Form B Nov.	29	35
Lingquest*		
Mean Length Utterance	6.20	
Total Words	434	
Total Different Words	154	
Type/Token Ratio	.35	

*Ashley, like Dirk, contributed more oral language than one Lingquest file can analyze. Consequently, this analysis was based on her first 434 words.

	Raw Score	**Age Equiv.**
October		
Standardized Admin.	10	6y 0mo
With Coaching	12	8y 6mo.
Difference:	2	2y 6mo
November		
Standardized Admin.	8	5y 0mo.
With Coaching	12	8y 6mo.
Difference:	4	3y 6mo.

Observations From Coaching

During the first administration of the picture association tasks, Ashley required support in following the examiner's clues:

Examiner: These are both on your head, you need something else that is on your what?

Ashley: Leg

Or in another example:

Examiner: These are flying in the air and this also has to fly in the air. Does that make sense?

Ashley: A person that goes up way all over.

Examiner: Yes, but is that flying in the __?

Ashley: Paraship

Examiner: Parachute? We're looking for something else flying in the air, right? Let's see if you can find something flying in the air.

Ashley: A kite

The transcript of the first testing has several instances of the examiner trying to re-direct Ashley's reasoning, once by linking her word to the salient word "eagle bird" and once by interrupting her.

Ashley: Yes, but this turtle lives in __.

Examiner: But down here we need another animal that can live in both land and water.

Although Ashley had a lower score during the second standardized administration her problem solving during coaching was noticeably more efficient. She responded easily to cloze sentence cues and seemed to recognize the role of the examiner's clues in problem-solving. Despite information provided, however, she persisted in selecting the awl as the writing instrument and the whale as an amphibian.

Information From Observation

Ashley was one of two identical twins in this class. It was extremely difficult to discriminate between the two girls with the exception that the other twin, Annette, had delayed articulation development. Thus Ashley became "the one you can understand". At times it was difficult to discriminate between the two on video tape unless their speech was evident or, since they were always dressed differently, unless someone remembered which clothing one of the children wore that day. Although this confusion influenced the perception of adult viewers, both girls operated quite independently and the relationship seemed to have less effect on their actual functioning.

In general, Ashley was a "fringe player"; she became involved in play being organized by other children in a semi-participatory manner. Although clearly following the theme of the play, she was often semi-autonomous in her role. She played with her twin sister from time to time but there was little evidence that the two sought each other during free play activities. The quality of her play did not differ between times when her twin sister was present and times when the two were separated. The teacher explained "I sort of separated them purposely often, but I guess it doesn't matter if I don't or I do" and "Just doesn't matter if they're not together, which is good."

Although Ashley was quiet when playing, she was willing to contribute to discussions and to reply to the teacher's questions. She didn't provide extensive information about herself but was assumed to be progressing normally. One area of identified weakness was in the area of motor skills, especially cutting with scissors. This early in the school year this was easily attributed to lack of experience and was seen more as an area to be developed than evidence of weakness. This was also seen as possibly related to Ashley's being left-handed.

9. ANNETTE: C.A. 5 years 3 months

Figure XI

Scores: Annette

	Raw Score	Age Equiv.
TOLD		
Oral Vocabulary*	83	5y 7mo.
Grammatic Understanding	17	6y 9mo.
Boehm Test of Basic Concepts		**Percentile**
Form A Oct.	29	35
Form B. Nov.	29	35
Lingquest*		
Mean Length Utterance	5.89	
Total Words	224	
Total Different Words	108	
Type/token Ratio	.48	

*Annette, the identical twin of Ashley, exhibited delayed articulation development. Although the examiner had extensive experience with articulation-delayed kindergarten children, occasional unintelligible responses may have depressed Annette's test scores when verbal responses were required, i.e. the Oral Vocabulary section of the TOLD and the Lingquest analysis of story re-telling. It was the examiner's impression that the Lingquest analysis showed the greatest effect since Annette seemed to limit her responses as if anticipating that she would not be understood.

	Raw Score	Age Equivalent
Hiskey-Nebraska with coaching		
October		
Standardized Admin.	3	below 3y 0mo.
With coaching	9	5y 6mo.
Difference	6	2y 6mo+
November		
Standardized Admin.	6	3y 6mo.
With Coaching	10	6y 0mo.
Difference	4	2y 6mo

Observations From Coaching

During the first administration of the picture association sub-test with coaching, Annette had difficulty focusing on the salient cues or applying those cues in selecting a response. For example, when needing to identify another farm animal she selected a lion although seeming to understand that she needed to select a farm animal. After the first two errors, however, she began to complete the cloze sentences accurately but still select the incorrect item. At some times she seemed to be unclear regarding the task. The more difficult item involving amphibian illustrated that.

Examiner: So down here we need something else that also goes on water and land. Let's see if we can find it? Which one do you think? The fish?

Annette: Yes, can the dog live in water?

Examiner: Do you want to change? Do you want to put a different one there?

Annette: Yes

Examiner: Ok. What is that?

Annette: A dog.

Examiner: That's a dog?

Annette: No, dock.

Examiner: I think it's an alligator. Do you think it's an alligator?

Annette: Yes

Examiner: Ok. is that the one you want there? Which one do you think is best?

Annette: This one

Examiner: You think the whale's best?

Annette: The whale lives in water.

The second administration of the test was somewhat more efficient. Not only did Annette score higher initially but her responses to questions directed toward eliciting salient information were more focused and correct. Furthermore she was more able to specify which ideas or pictures she did not understand in order to obtain information. She still had difficulty specifying a stringed instrument and amphibian animal. However she was able to discriminate the mean bird and to identify the typewriter as a writing instrument. Thus in both score and strategy she showed definite gains.

Information From Observation

Since the examiner and teacher typically referred to Annette and Ashley together, many of the comments summarized regarding Annette parallel those for Ashley. As an identical twin, identification of Annette often rested on her immature articulation. The teacher explained "Annette is difficult to understand. At times I'm not sure what she's saying.". Although the teacher considered that Annette might need help in correcting her speech, her general level of functioning seemed to indicate normal development.

The twins were comfortable playing together, but they did not seem to seek each other during free play situations and both played happily with other children. Although typically quiet, Annette responded to questions and participated in discussions. She also strongly expressed her preference that her whole name rather than her nickname be used.

One weakness noted for both twins involved fine muscle coordination, especially difficulty cutting with scissors. Annette, the right-handed twin, may have had difficulty either from lack of experience or poorer fine muscle control.

One other observation regarding Annette remained tentative but possible. It seemed that she relied on gesture and limited the number of words she used as a compensation for her limited intelligibility. In comparison to Ashley she used more gestures and shorter sentences. In most respects, however, the two girls seemed very similar.

10. LANCE: C.A. 5 years 2 months

Figure XII

Scores: Lance

	Raw Score	Age Equiv.
TOLD		
Oral Vocabulary	7	4y 11mo.
Grammatic Understanding	13	4y 9mo.
		Percentile
Boehm Test of Basic Concepts		
Form A Oct.	23	15
Form B Nov.	29	35
Lingquest		
Mean Length Utterance	6.09	
Total Words	335	
Total Different Words	163	
Type/token ratio	.48	
	Raw Score	**Age Equiv.**
Hiskey Nebraska		
October		
Standard Admin.	9	5y 6mo.
With coaching	14	12 y 6mo.

Difference	5	7y
November		
Standard Admin.	9	5y 6mo
With Coaching	13	10y 6mo.
Difference	4	5y

Observations From Coaching

In the first administration Lance had some difficulty during the coaching session in defining a class name.

Lance: Harp and guitar

Examiner: And what are both of them? They both are what?

Lance: One is a harp and one is guitar

Examiner: What are they both? Together they're both __?

Lance: They're different.

Twice he seemed either unfamiliar with the name of an item pictured or unfamiliar with the item itself; he asked the name of the harp and the axe. He successfully identified the typewriter and alligator after routine coaching and seemed to understand the rationale for those two choices.

During the second administration Lance replied more rapidly, followed clues more efficiently and completed cloze sentence cues more rapidly and correctly. One exception to this, however, was his return to the awl as the correct writing instrument. He understood that it functioned as a leather punch, asking "How do you punch it in?" but still selected that response.

Information From Observation

Lance was an eager participant in all activities observed for this study. He talked willingly to adults and seemed to enjoy sharing his experiences. He was a blond, blue-eyed boy slightly above average in height. His parents had immigrated from Denmark; both parents were employed. Lance had one younger sister.

Lance was one of few children for whom the teacher's appraisal of competence seemed to shift during the study. At first the teacher expected that Lance would be among the high average to outstanding students because he learned routines quickly, played cooperatively with others and entered into kindergarten activities successfully. As the two months progressed it became evident that, although he was developing normally and there was no concern about his general ability, Lance was more likely to perform at a mid-average ability level. The change in perception occurred when Lance's performance on academic readiness tasks showed a more average ability during cognitively demanding activities.

During play time Lance almost always selected the block corner where he provided leadership to one or several children in building a range of structures. At first he seemed cognizant of the video camera, but this decreased during the first few weeks. The one time he was assigned to the playhouse against his preference he was quite mature about "making the best of something" but was noticeably more disinterested than usual.

Lance was described by the teacher from the outset as a "capable, able to take care of himself, kind of kid". Paralleling this was the perception that, unlike two other boys, Lance would not cry when bumped. The teacher described Lance as a "bit of a stoic". Among his social skills were his abilities in playing with Rory without confrontation and in recruiting Damon to participate relatively constructively. Once into a building or role-playing project Lance would be very self-directed and undistracted. Conversely he was able to spontaneously negotiate a story line with other children.

From the outset Lance was noticed for his ability to understand and follow directions. During one interesting building project shared by Lance and Dirk, Lance apparently did the planning and Dirk observed what he was doing and followed as was suitable. Neither the examiner nor teacher could observe any overt communication but the building proceeded without difficulty.

Lance's leadership skills were described by the teacher early in the study: "He was ... directing things and yet not directing them. He certainly was in charge of building that doghouse ... he didn't let anybody interfere with it. Damon tried, Jeanine tried, and they didn't get away with it.".

Many of Lance's gross motor skills seemed quite well developed. He was observed balancing well while walking across a row of blocks. These skills were not as evident in small motor areas such as cutting and pasting.

The teacher viewed Lance's parents as people caring about their son's experiences. This was captured well in the following discussion regarding nursery rhymes.

"We're seeing more and more parents who don't bother. I bet you anything Lance has been exposed to nursery rhymes. Lance has parents who would expose him to nursery rhymes."

11. RALPH: C.A. 5 years 0 months

Figure XIII

Scores: Ralph

	Raw Score	Age Equiv.
TOLD*		
Oral Vocabulary	6	4y 4mo.
Grammatic Understanding	16	6y 3mo.
		Percentile
Boehm Test of Basic Concepts		
Form A Oct.	31	45
Form B Nov.	37	70
Lingquest		
Mean Length Utterance	3.08	
Total Words	37	
Total Different Words	34	
Type/Token Ratio	.91	

*Ralph was a relatively silent child who responded far more willingly to pointing tasks than to those that required verbal formulation. More importantly he avoided talking aloud when the tape recorder was running. His reluctance to speak probably depressed some scores. In the scores above the contrast within the TOLD may capture this. On the pointing test, Grammatic Understanding, he performed far better than on the verbal formulation test, Oral Vocabulary.

	Raw Score	Age Equiv.
Hiskey Nebraska with tutoring:		
October		
Standardized Admin.	5	3y 0mo.
With coaching	14	12y 6mo.
Difference	9	3y 6mo.
November		
Standardized Admin.	9	5y 6mo.
With coaching	13	10y 6mo.
Difference	4	5yr

The summary of scores across children presented at the close of this chapter, shows that Ralph had greater variability between October and November scores than did most other children. It is likely that Ralph's general uncertainty with novel situations depressed his October scores. Thus improvement in November was at least partially due to his gaining experience with the school-related tasks.

Observations From Coaching

During the first administration, initial coaching seemed to focus on helping Ralph view items as members of a class. It appeared that he knew the class name "fruit" but did not realize he needed to find the commonality between apple and banana. When the need for a class name or attention to specific sub-class characteristics was pointed out to him he promptly solved the problem correctly. That is, shown the problem-solving strategy he applied it promptly and correctly. The examiner often repeated information in a revised form as if uncertain whether Ralph understood, e.g. "They can live in the water and they can live on the land. They can live on both." It may be that Ralph did not need these repetitions but that his reticence to respond led to reduced cues by which to judge his degree of comprehension.

On the second administration Ralph was clearly more aware of the strategies necessary to complete the items. On the items he had missed he supplied the critical information when asked to complete a cloze sentence. He required fewer prompts, made fewer incorrect or partial answers and generally performed more efficiently the second time.

Information From Observation

Comments about Ralph tended to focus on two characteristics. First, he was very quiet and didn't say much. Second, he cried easily when bumped, etc. but responded quickly when the teacher came to comfort him. He seemed to cry more easily than the other children. The teacher explained that "he cries easily. Another kid would shrug it off." "He's easily upset ... cries easily ... It always amazes me how easily he's upset over things you wouldn't expect him to be upset over.".

The teacher and examiner often wondered whether Ralph spoke more than was detectable or whether he actually played as silently as it seemed. The teacher had heard that Ralph had a brother a year younger "that's a terror", but how that related to Ralph's characteristics was uncertain. The following generally captured the appraisals of Ralph:

Teacher: He just quietly goes along with things.

Researcher: I think he plays with the kids though.

Teacher: Yes he plays all right; he's just not a leader.

As noted above, Ralph was typically involved in some type of cooperative play. He was often seen as the third person entering an activity in that he would happily join two collaborators and participate in that way. He worked energetically, especially on block-building activities and was even an enthusiastic participant in putting blocks away.

He was seldom aggressive. However, one day he was seen three times kicking over someone else's block towers. This was unusual and the teacher remarked: "He's not usually like that. I have a feeling that he's frustrated or something."

Frequently Ralph's silence was discussed in association with Anita's quietness. Agreeing that those two were probably the quietest, the teacher characterized them as "Very quiet and you don't know sometimes what's going through their head."

When pre-academic activities were involved, Ralph was able to manage them with some effort. He was perceived as having generally average ability with the possibility that he had slightly higher ability which was masked by his silence.

12. CLEO C.A. 5 years 1 month

Figure XIV

Scores: Cleo

	Raw Score	Age Equiv.
TOLD		
Oral Vocabulary	3	4y 4mo.
Grammatic Understanding	13	4y 9mo.
		Percentile
Boehm Test of Basic Concepts		
Form A Oct.	32	50
Form B Nov.	37	70
Lingquest		
Mean Length Utterance	6.19	
Total Words	322	
Total Different Words	131	
Type/Token Ratio	.40	
	Raw Score	**Age Equiv.**
Hiskey Nebraska with coaching		
October		
Standardized Admin.	7	4y 6mo.
With Coaching	11	7y 0mo.
Difference	4	2y 6mo.
November		

Standardized Admin.	8	5y 0mo.
With Coaching	13	10y 6mo.
Difference	5	5y 6mo.

Observations From Coaching

During the first coaching, Cleo seemed to be missing essential concepts necessary to solve the three problems she missed. For example, the contrast between farm and zoo animals did not seem to be clear to her nor did she seem to comprehend the need to identify an animal that could live on BOTH land and water. The third error was the selection of book as something for writing rather than the typewriter. In contrast, she was very successful at using cloze sentence clues in problems for which she probably had the conceptual background -- identifying objects that fly and associating the eye with the ear and nose.

The second administration was remarkably more efficient than the first. During coaching, Cleo responded promptly to cloze sentence clues and corrected her selections. The one exception was her repeated selection of a book, as a writing instrument, or, as she explained, "to write in".

Information From Observation

Cleo presented a contrasting appearance. She was clean and carefully dressed, but her front teeth had decayed to blackened stubbs. She lived with her mother and teen-age brother and sister. Her father did not live with them because, according to Cleo as recalled by the examiner, "her Mom doesn't like her Dad anymore and told him to get out because he laughs when Cleo bumps her head." The mother was employed as a maid at a local motel and Cleo was brought to school by her 16 year old sister who had discontinued school and was employed as a baby-sitter. Cleo eagerly waved at her sister when the sister arrived at school and they seemed to share a warm, welcoming greeting when school was dismissed.

Cleo was a bright-eyed slightly chubby child who responded warmly to adult attention and seemed to enjoy one to one testing/talking situations. At times she provided responses and summaries in these situations which were more advanced than anticipated and the examiner often wondered whether Cleo had greater potential for conceptual development than was generally expected.

During viewing of the tapes Cleo was considered to be a normally developing child. Although not classified in the top half of her class, she seemed definitely within the normal range of functioning. In addition she was seen as having a mother who was genuinely concerned about her progress.

During play Cleo tended to sit somewhat quietly in the play area, joining in from time to time but not being an active participant or an evident leader. She was friendly and generally cooperative. On one or two occasions the teacher suggested something for her to do, and she followed the suggestion willingly, e.g. "Why don't you go help Daryl with the blocks?".

Generally Cleo preferred playing in the playhouse and generated more dialogue with other children in that context. She had one or two girl friends with whom she played dolls. The play often appeared as parallel play with intermittent responses to the games of the more active boys who would dash through the playhouse as robbers, etc. On one of these occasions Cleo asked Bryan, who was playing as a dog, to scratch Rory, who was pretending to be a mean robber. This was seen as an attempt to direct the play of others. For the most part, however, Cleo was seen as a follower who did not nominate herself for attention. This follower role was evident one day when she appeared to be playing with Kerri and Amelia. As their play progressed, Cleo was clearly more and more excluded, not because they chose to ignore her but rather because with their greater maturity they were advancing the play storyline more rapidly than Cleo could participate. Two statements by the teacher serve as apt summaries of Cleo:

"I think she's coming along. You know, o.k.. I think it's just taking her longer because she is shy."

"She's just sort of a middle of the road worker I think. She's getting it done."

Qualitative Differences Between Groups

In this kindergarten class all children described thus far were seen as having the potential for being successful in school. Although there were variations of ability in both cognitive and social-emotional spheres, all were considered capable of succeeding. The children to be summarized next had created some doubt regarding their ability to be successful in school or to progress at the usual rate. In fact their interactions seemed qualitatively different from the group classified as average.

13. ANITA: C.A. 5 years 5 months

Figure XV

Scores: Anita

	Raw Score	Age Equiv.
TOLD		
Oral Vocabulary	2	below 4y 4mo.
Grammatic Understanding	0	below 4y 0mo.
		Percentile
Boehm Test of Basic Concepts		
Form A Oct.	16	15
Form B Nov.	14	10
Lingquest		
Mean Length	6.34	
Total Words	374	
Total Different Words	135	
Type/Token Ratio	.36	
	Raw Score	**Age Equiv.**
Hiskey Nebraska with Coaching		
October		
Standardized Admin.	8	5y 0mo.
With Coaching	10	6y 0mo.
Difference	2	1y
November		

Standardized Admin.	6	3y 6mo.
With Coaching	12	8y 6mo.
Difference	6	5y

Observations From Coaching

During the first coaching sessions Anita's responses were marked by apparently limited understanding of the nature of the task. It was difficult to discriminate her difficulty with the process from what appeared to be limitations in vocabulary and conceptual background. The following dialogue illustrates the nature of her difficulty:

Examiner: Tell me about those animals. What are they?

Anita: Those are -- this one a frog and this one I think moving around.

Examiner: Yes, I think this is a turtle.

Anita: It is a turtle.

Examiner: Where do they live?

Anita: In the country.

Examiner: Could it be that they live on water or land or both water and land?

Anita: Water. And frogs go in water.

Examiner: Both of those can go in the water and they can go up on the grass, too. So over here we need an animal who can go on both water and grass? Let's see if we can find one.

Anita: That's fish, this is.

Examiner: That's an alligator I think. There's an eel and there's another fish. Which one of those would finish the picture best, do you think?

Anita: This one.

Examiner: The whale?

Anita: nods yes.

In general it appeared that Anita was being asked to perform tasks beyond her level of development. She seemed to lack the prerequisite vocabulary, concepts, and problem solving strategies.

During the second administration of the test Anita's improvement could be explained by her having learned that "if you're asked again, choose a different one". Whether the improved coaching score stems from conceptual development or good luck -- or more likely a combination of the two -- is unclear. The following illustrates Anita's continuing difficulty with the process despite her selection of the correct answer.

Examiner: What are those?

Anita: Birds

Examiner: I want to tell you something about them. Those birds eat other birds, other animals. That one eats birds, this one eats mice and rabbits. So they are mean birds.

Anita: Yup

Examiner: So over here you are going to need

Anita: Meat

Examiner: It's mean. Do you know the word mean? Mean is hurts things. You know that word?

Anita: Yes

Examiner: A bad bird.

Anita: Bad bird.

Examiner: Right. O.K. You need to find another bird that's a bad bird. Which bird would that be?

Anita: This one

Examiner: That one. You think the eagle is going to be a bad bird?

Anita: Yes.

Information From Observation

Anita was the third child in a family of 5 children. Her oldest sister was 16 and Anita was quite proud that the sister had a job as a hairdresser and "even" had a boy friend.

The older sister, Lillian, was the source of most of the information about Anita's background. The father and mother, who were unemployed during the period of this study, arranged that Lillian would represent the family when it was Anita's mother's turn to help in the kindergarten. Lillian was a welcome addition to the classroom not only because she was a charming young woman who helped proficiently but also because when she was present Anita seemed delighted. Anita appeared very proud that her sister was there, and the sister seemed to reciprocate with equal warmth and caring.

The family had a French surname and it was surmised that one of the languages of the home might be French. Although Anita reported that they spoke only one language at home, the sister confirmed that the family spoke both French and English. It seemed likely that Anita had not classified the words she knew as two different languages since in response to a question asking her to list foods she used a French term for potato in conjunction with English food names.

Generally the examiner and teacher had a difference of opinion regarding Anita's language ability and the prognosis for her success in school. This difference could be explained by the fact that the examiner had greater one to one test evidence but limited in-school evidence. Conversely the teacher had no test data but extensive in-school evidence. Furthermore it seemed likely that the teacher and examiner gave different weighting to the evidence they shared. The examiner felt that Anita had central difficulty identifying salient information and recognizing the nature of required performance. The teacher, in contrast, saw Anita as a child whose difficulties stemmed from her limited experience with materials, play, or verbal activities such as storytelling. Consequently the teacher placed emphasis on the improvements evident in Anita's performance as she gained experience with such activities.

One of the most important contributors to the examiner's judgment was Anita's inability to re-tell the children's story. It seemed that inexperience in story-telling might yield a paucity of detail and limited evidence of story grammar. In addition to these weaknesses, however, Anita did not provide information relevant to the storyline of the book. At times she related details about specific pictures but this was typically naming of picture items. Familiar relationships such as a sister, mother and friend were confused or omitted.

During the videotapes a prevalent characteristic was Anita's lack of talking. From the outset the teacher observed that "other than the fact she had a doll and was playing with it, he (the cameraman) might have missed her" meaning that Anita had to be doing something that attracted visual attention to be noticed. One question of continuous interest was whether or not Anita spoke to people when playing. Both the examiner and teacher were unsure whether she did not talk while playing or whether her occasional comments were not apparent on video-tape.

One sign of Anita's immaturity was her use of "me" in the subject slot e.g. "Me did it" and her prevalent pattern of isolated or parallel play. She tended to select a doll and play in the back corner of the playhouse, often seeming to play in parallel with another girl. They seemed to be happy with this relationship, not appearing to feel isolated but playing in tandem. She spent most of the free play time dressing a doll and brushing its hair. The teacher characterized her as probably "too docile, too quiet".

By the second month Anita was joining in some group play, especially around the play car. She would sit with the group, not contributing but seeming to enjoy the plot unfolding around her. This joining in, the teacher explained, occurred because "that was a safe spot".

The teacher captured her perception of Anita in the following:

> I don't think she's had a lot of attention at home. I think she's got a nice loving family but I don't think as far as the skills a lot of kids come to school with that she's got them yet. But I think she'll pick them up. I don't think she knows her numbers or alphabet or anything like that.

Despite Anita's independent play, she seemed generally friendly to the other children. She would smile when they approached or talked to her. At times it was possible that the presence of the camera may have added to her disinclination to speak. As the teacher explained, "I think it's her nature to be quiet and shy; just do the things but not say much."

By the end of October there was more evidence of Anita's ability to speak quietly to people near her. The teacher noted "she does it so quietly unless you're right near her you're not aware that she's talking to those kids." Anita was characterized as being a follower much like Cleo and Chuck.

By the first week in November the teacher was pleased with Anita's progress: "Isn't it something how Anita has just gotten into things lately?" About that time Anita was chosen by Rory one day because he wanted to sit by her during group time. He was determined, unwilling to move, and was allowed to stay as long as he remained quiet -- which he did. Also in November during a cutting and pasting classification task Anita gave instructions to Damon. When asked to repeat her instructions for the researcher she was quite willing to do so. She was correctly identifying his error and giving him partially accurate information. She was correct in grouping objects by whether they were in the hardware store or pet store but she thought the objects had to go in specific spaces under those correct categories. Rapid development for Anita fit with the teacher's expectation for someone lacking a breadth of experiences at home.

14. DAMON: C.A. 6 years 2 months

Figure XVI

Scores: Damon

	Raw Score	Age Equiv.

TOLD		
Oral Vocabulary	1	below 4y 4mo.
Grammatic Understanding	12	4y 6mo.
		Percentile
Boehm Test of Basic Concepts		
Form A Oct.	15	5
Form B Nov.	19	10
Lingquest		
Mean Length Utterance	5.24	
Total Words	131	
Total Different Words	64	
Type/Token Ratio	.48	
	Raw Score	**Age Equiv.**
Hiskey Nebraska with Coaching		
October		
Standardized Admin.	1	below 3y 0mo.
With Coaching	7	4 yr 6mo.
Difference	6	1y 6mo+
November		
Standardized Admin.	8	5y 0mo.
With Coaching	13	10y 6mo.
Difference	5	5y 6mo.

Observations From Coaching

During the first coaching Damon seemed unaware of the purpose of the activity. He knew he was to select a response card, but he seemed to do so at random as if the coaching conversation were noise unrelated to the demands. He made errors in the first three items which were used by the examiner to train the task, and did not appear to identify the explanations as having salient information. Damon also found it difficult to stay with the task and wished to discontinue the activity at several points.

Specifically Damon identified that he needed to choose the picture of the tent and completed the cloze sentence to say "They are both houses". More frequently Damon had difficulty identifying the commonality across the stimulus items.

Examiner: What are these both? They're both

Damon: Bananas. Two Bananas.

Examiner: Is this a banana?

Damon: Nope. This one.

Examiner: Yes, What's this?

Damon: Apple

Examiner: And those are both what? Are those both cars?

Damon: Nope.

Examiner: No. They're both what?

Damon: That's apple and banana.

Examiner: And they're both fruit.

Damon: Yes.

Examiner: So over here what do you need? You need another

____

Damon: carrot

Examiner: How about another fruit? Are these fruit?

Damon: No, yes.

Examiner: Then it would be a whole picture of fruit? Let's see if you can find another fruit.

Damon: This one.

Examiner: The carrot's another fruit?

Because Damon could sometimes complete a cloze statement essentially accurately

Examiner: What are those?

Damon: Chair -- seating, sitting

but select the wrong response picture, it can be wondered whether his correct verbal responses were a matter of chance rather than understanding.

Generally it seemed that the coaching process had little effect on Damon's responses. He seemed to select response items without reference to the information being provided for him. This persisted during the second session of coaching -- either he had the response correct at the outset, or regardless of coaching, he did not respond correctly. The question regarding the role of chance in his responses remains unanswered.

Information From Observation

Damon was jointly enrolled in kindergarten and grade one, which was the study school's typical arrangement for children repeating kindergarten. Thus Damon attended kindergarten in the morning while grade one focused on the more academic program and attended grade one in the afternoon when there was less emphasis on reading and writing.

The previous year Damon's performance in kindergarten was typified by the teacher as being very hyperactive. Both Damon's mother and teacher viewed him as less able to focus on a task and more likely to move rapidly and randomly through the classroom than the other children. Damon's level of activity had made him recognized by other teachers and school staff as well. This characteristic remained to some degree: "by the end of last year he was settled down quite a bit, when he came back this fall he was stirred up again, but it's easier to settle him".

Standardized individual testing had been attempted the previous year but Damon did not attend to the task sufficiently to obtain a valid score. With his improved ability to attend, a referral for testing was anticipated and special education placement seemed possible.

Damon was friendly and liked to "clown" for adults and for the camera. Although he frequently required redirecting, he was neither aggressive nor hostile in his interactions with children or adults. His rather random involvement in play activities was characterized by the teacher as "It looks like he's at loose ends" and "He's showing off ... He is that kind ... He's settled down a lot, maybe he's just always like that."

From the outset Damon would recognize when he was being filmed and dance and clown for the camera. As the teacher summarized "He's not too bad now but when he spots the camera he p[illegible]n a little show". It was thought that Damon often used clowning at the family's restaurant.

At times Damon would enter into a segment of play such as pretending to drive a car with Rory. Another time he entered into the block play by pretending to be a dog. Typically Damon role played more frequently than he participated in physical manipulation of items such as blocks. The teacher commented "I would say that Damon is playing much better this year than a year ago at this time." and "I would say that he's accepted a hundred times better this year than last year, which would hopefully happen." "He has always been out of things because he couldn't be bothered with them. Whereas now, he's right in there."

At times Damon was compared to Bryan since both nominated themselves for attention although their styles of attention-getting and the underlying reasons were quite different. Nonetheless, it was agreed that there was no danger of missing either of their presences in viewing the tape.

When pre-academic activities were viewed, Damon had definite difficulty following the instructions. Part of this difficulty was attributed to distractability. At one remarkable time Anita carefully instructed him on how to proceed. The teacher reported that he still writes his name backwards most of the time, and although he can recognize some numbers, he has not learned color names.

Although the teacher reported seeing definite improvement in Damon's ability to interact with other children and attend to directions, she did not see the hoped-for improvement in general performance. Thus, hyperactivity and distractability may not be the only causes for Damon's limited success in kindergarten. Since this teacher was typically careful not to pre-judge children's abilities, in October she responded "It's hard to say" whether Damon would require special education placement. However, in November the following summarized her tentative position.

Researcher: Did you find it disappointing? Did you think that once he (Damon) sat he'd be successful?

Teacher: Yes. I thought he'd be better than he is, but he's going to be a Special Ed. kid.

15. JEANINE: C.A. 4 years 10 months

Figure XVII

Scores: Jeanine

	Raw Score	Age Equiv.
TOLD		
Oral Vocabulary	3	below 4y 4mo.
Grammatic Understanding	9	4y 0mo.
		Percentile
Boehm Test of Basic Concepts		
Form A Oct.	2	1
Form B Nov.	18	5
Lingquest		

Mean Length Utterance	4.95
Total Words	366
Total Different Words	156
Type/Token Ratio	.42

	Raw Score	Age Equiv.
Hiskey Nebraska with Coaching		
October		
Standardized Admin.	3	below 3y 0mo.
With Coaching	11	7y 0mo.
Difference	8	4y 0mo.+
November		
Standardized Admin.	4	3y 0mo.
With coaching	11	7y 0mo.
Difference	7	4y

Observations From Coaching

During the first coaching session Jeanine continually demonstrated that she did not understand the response task -- for example, she wanted to stack all the response cards onto the stimulus cards. Often her correct responses could have been attributed to either eventual understanding or chance.

Examiner: Now tell me what we have here.

Jeanine: A bike. I need a bike.

Examiner: A bike and a scooter. What do you do on both of these?

Jeanine: I don't know.

Examiner: What can you do with a bike? Do you eat it?

Jeanine: No.

Examiner: Do you sleep in it? Do you ride on it?

Jeanine: Ride it.

Examiner: Ok. So these are both things that you ride on.

Jeanine: Yeah.

Examiner: So what will we need to put here? To finish it. Another thing that you what?

Jeanine: Bicycle.

Examiner: Another thing that you can ride on, right?

Jeanine: Yes

Examiner: Ok. See if you can find something that fits, something to ride on.

Jeanine: I think the wagon goes here.

At other times Jeanine seemed totally confused:

Examiner: We have a pig, we need something else.

Jeanine: I need a pig when I go on the farm.

Examiner: You need another kind of farm animal. Let's see if we can find another farm animal. Here's a tiger, here's a lion, here's a sheep and here's a bear. Can you find another farm animal. It's the bear is it?

Jeanine: The bear goes in jail.

Examiner: We need a farm animal. Is the bear a farm animal?

Jeanine: Can we turn them over?

Examiner: Do you think the bear's the farm animal, do you?

Jeanine: No, yes. No way, he's in jail.

Examiner: Where's a farm animal then, we need a farm animal for our picture.

Jeanine: I know how to put them back. Go right here.

Examiner: Are you sure you got that one all right?

Jeanine: Now I need a pig.

Examiner: We don't have any pigs.

It appeared that during the first coaching Jeanine had very little concept of the task and seemed, when she had an observable plan, to select response cards to match cards in the stimulus set or according to whatever characteristic she considered salient. The latter was typified by the amphibian problem. She seemed to interpret the statement "they live on grass" to mean "they eat grass" and thus searched for things that might eat grass, selecting the snake.

In the second coaching session Jeanine took less long to select a response. However, despite her correct response to a question about the relevant category, she had difficulty applying the concept to the choices.

Examiner: What are they both Jeanine? You have an apple and a pear.

Jeanine: Banana.

Examiner: And a banana. They are both what?

Jeanine: Those are the apple.

Examiner: What are they both? Are they both toys?

Jeanine: No.

Examiner: Are they both fruit?

Jeanine: Yes.

Examiner: So over here you need another fruit. Another fruit. Can you find another fruit here? Any of those fruit?

Jeanine: We need a milk.

Examiner: Is milk a fruit?

Jeanine: Yeah.

Examiner: But you need a fruit.

Jeanine: Don't need a fruit, you need milk.

Many of the self-corrections on the second administration of these tasks might be attributed to Jeanine having learned "to keep selecting a different response until the examiner changes items".

Information From Observation

Jeanine was the youngest child in this kindergarten and presented with typical signs of immaturity such as small stature, difficulty mastering routines, crying easily when frustrated, soliciting adult attention and difficulty joining in peer play. The predominant question with Jeanine was whether normal maturation would allow her to benefit from the school program or whether she would ultimately need a special program. From the outset Jeanine's reputation as being immature and prone to crying preceded her from the neighborhood playschool and the teacher mentioned to the mother that sometimes such children are recommended for a second kindergarten experience before proceeding to grade one. From the beginning of the study the mother and teacher had a shared anticipation that Jeanine might repeat kindergarten the following year.

One remarkable characteristic about Jeanine was her recurrent wish to "chat" with adults. At times this bid for conversation seemed to be attention-seeking and at times it might have been an attempt to divert the activity from something she was finding difficult. More often, however, it seemed that she just liked interacting verbally with adults. When she was allowed to control both the topic and direction, conversation with Jeanine could be both enjoyable and amusing. The following tangential conversation occurred during the first coaching of the Picture Association sub-test.

Jeanine: Do you got glasses?

Examiner: No

Jeanine: I do

Examiner: Do your glasses help you see?

Jeanine: Yeah.

Examiner: Good.

Jeanine: And I eat lots of tea and I'll have no more -- if I eat all of my food -- I'm going to go up to heaven someday. Are you going to come to heaven with us?

Examiner: I think so.

Jeanine: You are? God's going to take us. Guess why. Cause he loves you.

Examiner: I see.

Jeanine: You're not going to die there. You're just going to say "Hi" and give Him a kiss up there and say hello. You don't got no kids at home eh?

Examiner: Mmm humm.

Jeanine: You do? Where are they?

Examiner: At my house.

Jeanine: At your house? Who looks after them?

The first use of videotaping in the classroom provided evidence of Jeanine's general immaturity and fearfulness. She said she was afraid of the cameraman because he had a beard and thus she would not enter into the play area where the camera was directed. The teacher felt Jeanine might maintain this response, but Jeanine did play by the end of the period.

Her comments before entering the play area may have demonstrated logical reasoning on Jeanine's part. She stood next to the researcher out of the camera range asking questions like "You can't force me, can you?" and asking whether once the cameraman finished "you can play afterwards?" After she learned that she would miss all of play time by continuing to sit out, she walked once in front of the camera as if to test it and then entered into the play area.

Jeanine soon joined the play around the car with Rory as the driver. With Rory taking charge of the play theme, Jeanine remained in the passenger seat, not moving when other children asked to sit there. As the teacher described "I think she's just enjoying the situation and she's not giving up her seat either. She doesn't mind being the passenger". At one time the teacher entered into the situation long enough to help Rory and Jeanine develop a brief storyline for their play. Jeanine adopted the storyline, using it but not adding to it or extending beyond it.

On the second filming day Jeanine stayed out of the play at the outset once again. This time her attention-getting behavior was more evident. When both the researcher and teacher told Jeanine that they were too busy watching the children playing to talk to her right then, she tried to cling to the adults, moved wherever they moved and at one point collapsed to lying in front of them so they would have to walk over her. This was executed without talking, crying etc. Having been ignored by the adults, she soon abandoned these gestures and entered the play area.

Jeanine displayed a reasonably early awareness of some school routines. The first day the teacher aide did not appear, for example, she asked where the teacher aide was, and "who's going to fix the snack?".

As the research period progressed, Jeanine became more associated with Rory in the teacher's mind because each required a disproportionate amount of teacher assistance to complete an activity. Thus, it became habitual for these two children to be separated in small group work so the teacher would not have both of them to assist simultaneously e.g. "The only thing we do is try not to put Jeanine and Rory in the same group because they often need help."

Jeanine's play consisted of standing around on the fringe of activities watching others. Except for a few occurrences like the one mentioned with Rory she appeared to wander somewhat aimlessly but be aware of the activity of the other children. The following conversations regarding Halloween play illustrate these perceptions:

Researcher: Jeanine was in the playhouse alone and I went over and said "Someone's knocking at your door saying trick or treat". Jeanine said "I don't have anything for you", so they walked in and were helping themselves.

Teacher: It might have been, too, we know Jeanine. She doesn't know whether she has or she hasn't anyway. They aren't mean to her, but they know that there's lots of times she can't -- doesn't know things.

Researcher: Yes, I think they're just sustaining their play by doing it on their own because she's not going to take the part.

At another time the following remarks were made:

Researcher: Does Jeanine ever solve things herself? Does she always come to you?

Teacher: Yes, usually. Like she won't fight about it. She doesn't give up though ... She's not giving up the wheel but she doesn't usually go after it. She hollers".

By November Jeanine was beginning to play actively with some kind of focus although she remained alone in this play. She also seemed to try to repeat previously shared play episodes like riding in the car. Similarly, as the filming moved to pre-academic skills, Jeanine continued to require one-to-one assistance and seemed to parallel Rory in many aspects of accomplishment. Some routines remained unclear to her. For example, when asked to pass out scissors to children at her table, she quickly got one scissor for herself and sat down.

At the conclusion of the study period Jeanine was thought to have made definite progress since play school especially in almost eliminating crying when she didn't want to do something. The following summarize the general appraisal of Jeanine at the end of the study.

Researcher: What about Jeanine, she sat there watching.

Teacher: I think that she's sort of, doesn't entirely know what's going on.

Researcher: What do you think about her (Jeanine), do you think the second year will do it, or do you think it's more than that?

Teacher: I feel it's probably more than that, we'll see.

16. RORY: C.A. 5 years 6 months

Figure XVIII

Scores: Rory

	Raw Score	Age Equiv.
TOLD		
Oral Vocabulary	0	below 4y 4mo.
Grammatic Understanding	0	below 4y
		Percentile
Boehm Test of Basic Concepts		
Form A Oct.	10	3
Form B Nov.	5	1
Lingquest		
Mean Length Utterance	2.5	
Total Words	40	
Total Different Words	29	
Type/Token Ratio	.72	
	Raw Score	**Age Equiv.**
Hiskey Nebraska with coaching		
October		
Standardized Admin.	8	5y 0mo.
With Coaching	11	7y 0mo.

Difference	3	2y
November		
Standardized Admin.	2	below 3y 0mo.
With Coaching	9	5y 6mo.
Difference	7	2y 6mo.

Observations From Coaching

The remarkable discrepancy between many of Rory's scores during the first administration and the lower scores during second administration is a puzzle. Pure chance seems likely as Rory's classroom abilities did not make a similar change. In fact, the first testing showed abilities far beyond those expected from Rory. Although chance remains the most probable factor, such an explanation may be overly simplistic.

During the first coaching Rory was disinterested in the activity and the examiner attempted to maintain his attention. The transcript is characterized by continuous prompts from the examiner and a few one-word sentences from Rory.

Examiner: Ok. what are these? What do you use them for? You use them both to what? You use both to make what? To make dinner with them? No. Do you write with them? No. You can't write with a violin. Do you use them to make music? You do use them to make music. So over here we will need something else that also what? These two make music and this one will have to what?

Rory: Music

Examiner: It will have to make music, won't it? So they'll all make music. The top? You think the top will make music?

The second coaching consisted of the same type of error. The task seemed beyond Rory's functioning ability and was simply too difficult for him. At times he received credit for a correct item but followed it with a comment that suggested that the correct response had been more chance than understanding.

Examiner: Now, what do we have here? What are they doing? What are these things doing?

Rory: Flying.

Examiner: They're flying. Right. So you need something else here that's flying, don't you. Let's see if we can find something else. Can you find something else that's flying in there?

Rory: That's flying.

Examiner: The kite's flying. Ok. Good for you.

Rory: And car flying.

Information From Observation

Rory was the youngest of three children. He had been diagnosed at the Glenrose Rehabilitation Hospital as being mentally retarded and was recommended for a special program for retarded children. The enrollment in that program was full, however, and he was registered in his neighborhood school with the teacher's full agreement. Initially the discussions regarding Rory focused on two points. First the teacher found it ludicrous that a physician would say that Rory wouldn't benefit from kindergarten. Second, both the researcher and teacher were surprised at how well Rory played with other children and how often he entered into cooperative play and sustained a story line.

At the outset Rory nominated himself as driver of the play car and he sustained this role happily. When the teacher sat behind them and said "May I come on this ride?" Rory turned and said "Get out", so she left. He continued in this role, telling specific children whether they could ride or not. He turned the wheel saying "I'm moving" and reached over to fasten Jeanine's seat belt and then fastened his own. He tried unsuccessfully to get children to change seats which the teacher explained as "He's lacking his verbal skills to get what he wants often isn't he".

Giving Rory the special help he needed was a prevalent concern of the teacher. She considered moving him to afternoon kindergarten in which there were fewer children with problems. She also tried to keep Rory and Jennifer in separate activities as they both required special help. Although not assuming that Rory would progress normally, the teacher believed firmly that he should be in the kindergarten:

"Through what you've seen wouldn't you say Rory is learning a lot?"

"Immature behavior and everything, but he's certainly not going to learn sitting at home."

A parallel concern was showing Rory's mother how well he was fitting into kindergarten. The teacher felt that his mother was justifiably concerned if she had been told by her doctor that Rory wouldn't benefit from kindergarten. The teacher was eager for the mother to take her turn helping in the classroom so she could see how happily Rory was taking part in most activities.

In October the teacher remarked "I'm really pleased with Rory". He continued to play cooperatively and productively, on one occasion pretending to read a newspaper. On another occasion while playing with Adam he pretended to kick a block tower being built by another child but was clearly pretending and purposely avoiding contact with the blocks. His play ability continued to surprise the teacher as described in this exchange:

Researcher: What's your experience with low achieving kids like Rory? Do they usually play like that?

Teacher: I have never seen them play as well as he does. You know, he quite amazes me.

When playing robber roles with other boys he selected the words "diamonds" and "partner" from their conversations to use as he played.

There were some activities at which Rory seemed to balk with what the teacher referred to as "streak of stubbornness". He did not want to use the tape recorder with the examiner and he also avoided taking his shoes off in the classroom.

One of Rory's strengths was often described as his having a kind, loving nature. The teacher summarized, "Rory is a sweet natured child. He's just the most loving little boy. He wouldn't be in a fight very often I don't think. I hope he doesn't learn it from some of them." This friendly nature seemed to be understood by the children as they responded to his initiation of play or gestures of friendship. At times he would support some of the shy children as in the time he brought Ralph to the researcher because someone on the playground had bumped Ralph. It was clear that Rory's help was what Ralph felt he needed. Perhaps because Rory was among the larger in his class and known as being a kind person, some children would stop "shooting" other children when Rory said "No".

A secondary concern regarding Rory's progress was the possibility of his being led to misbehave at the urging of other children. Being friendly, he was easily recruited for almost any activity.

Other children became more sophisticated in their play with Rory. Lance, for example, would casually stop Rory from taking blocks from his building project. The teacher explained: "I think Lance knows how to handle Rory. I think Lance recognizes Rory as not quite with it in some ways. Like he's never given in to him, he doesn't hit him, but he makes him stop." Conversely, the teacher became concerned when she heard some children imitating Rory's way of talking because she hoped to curtail intentional teasing.

As the study period progressed, more pre-academic activities were introduced and it was apparent that Rory had considerable difficulty with these. He needed one-to-one assistance and sometimes lacked both the fine motor control and understanding to complete activities with any degree of independence. He did, however, occasionally answer discussion questions correctly.

These difficulties did not reduce the teacher's commitment to Rory's presence in the program. In November she mentioned again: "You know, when I think of somebody saying that Rory shouldn't be in kindergarten! He's getting something isn't he?" ... "I know that he's got problems, but he is learning and should be given his opportunity."

Summary of Evidence from Children

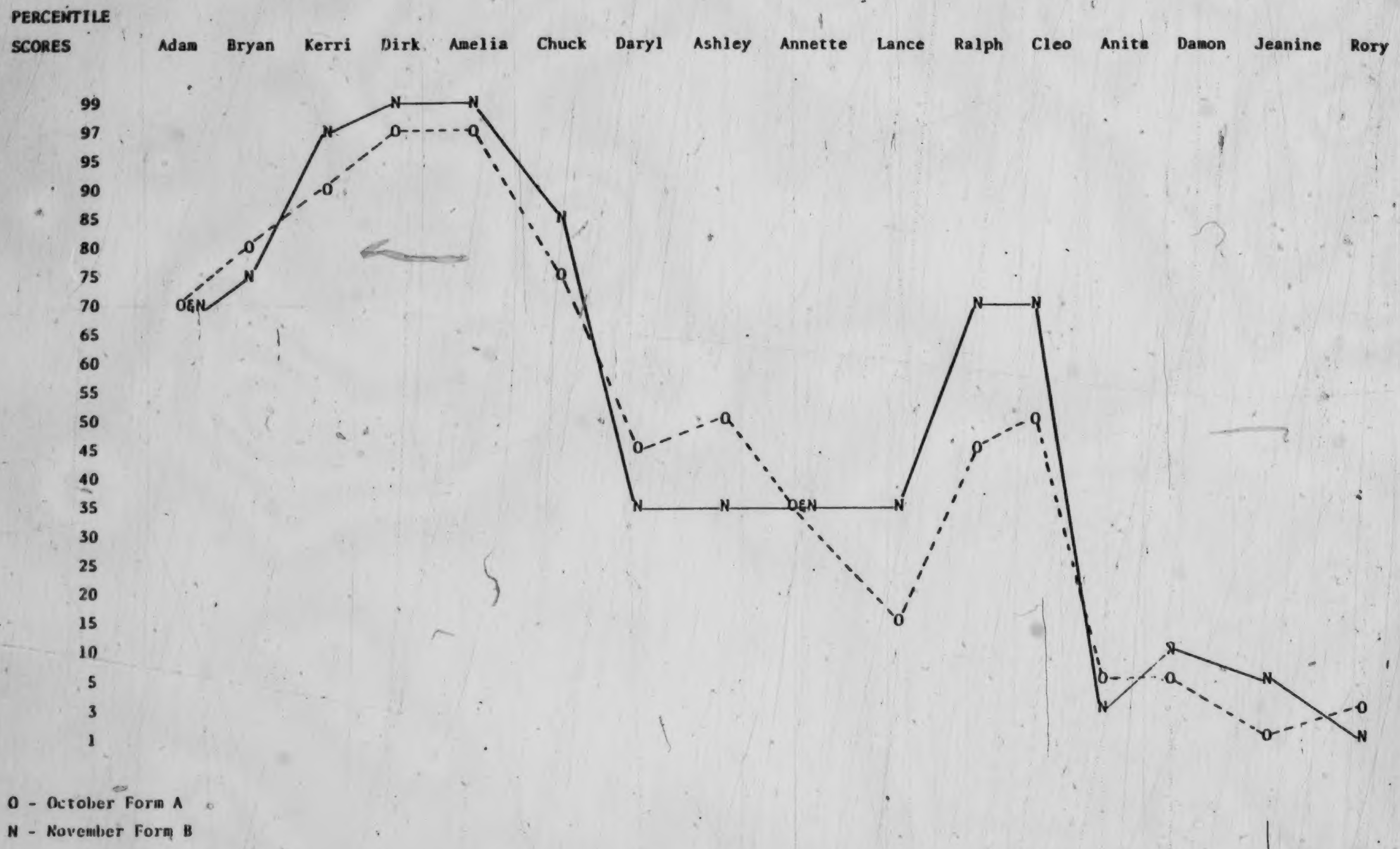
The preceding section detailed the evidence from this study at its first level of integration -- as it co-occurred in individual children. This section will integrate the information at a second level, summarizing evidence across children. This summary and the summary of evidence from the context, which comprises Chapter Five, will provide the foundation for the conclusions of this research. These two summaries will be followed by a third level of integration, the synthesis of summaries into concluding statements.

Summary of Quantitative Evidence

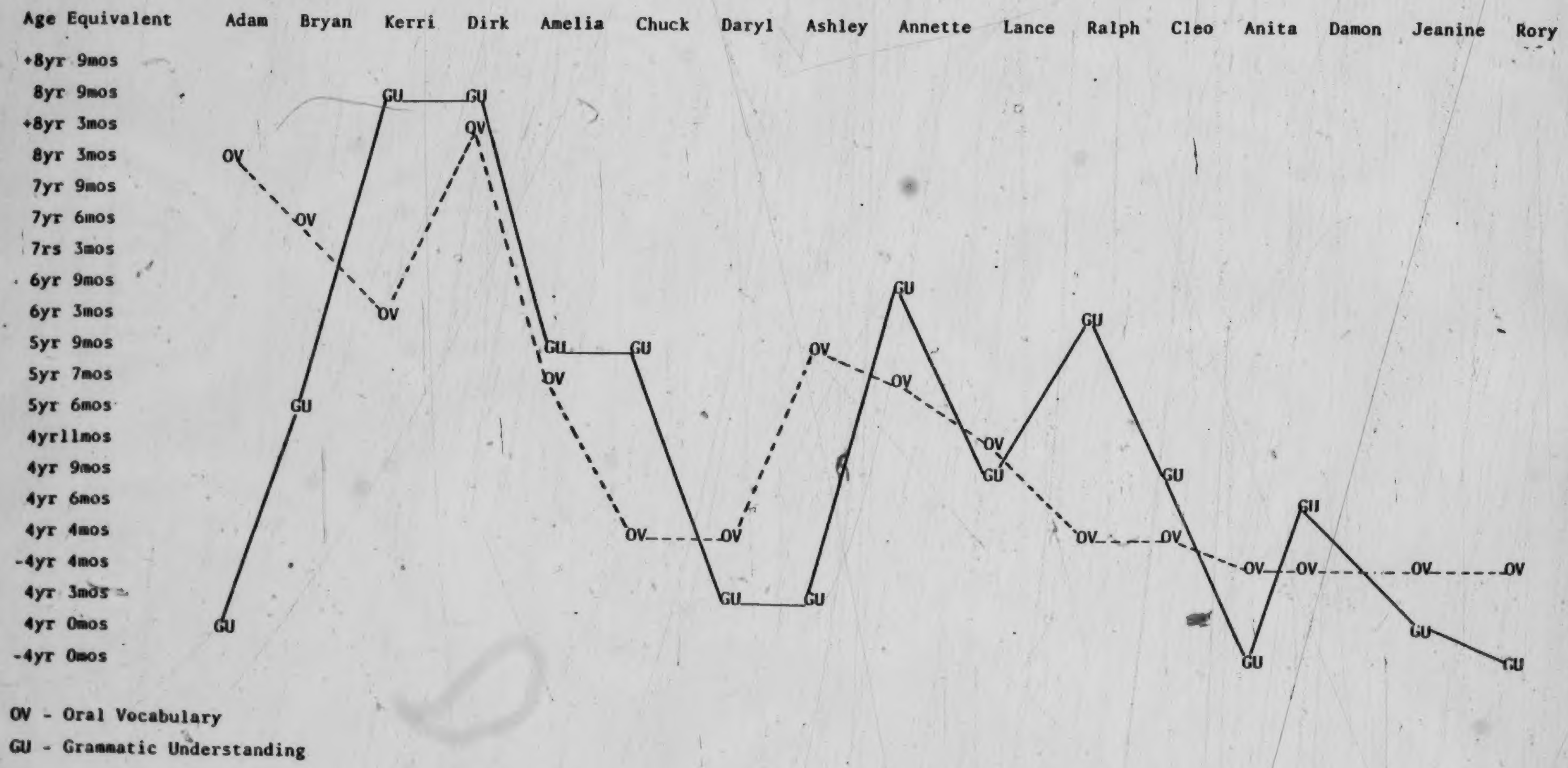
For each child the quantitative evidence was reported in tabular form. The individual information was then compiled into group graphs as shown in Tables 1 through 4. All of these tables are organized with the teacher-assigned language rank of each child on the horizontal axis, progressing from the highest ranking on the left to the lowest on the right. The respective test scores are arranged on the vertical axis with the highest scores at the top and the lowest at the bottom. Thus, if there were a complete correspondence between the measure and teacher judgment, the entries would form a diagonal line running from the upper left corner to the lower right corner.

Tables 1 through 4 indicated that although there is some correspondence between the standardized measures and teacher ranking, the quantitative measures do not directly correspond and thus do not account for the teacher's judgment. The closest of the measures, however, is the Boehm Test of Basic Concepts. The close relationship

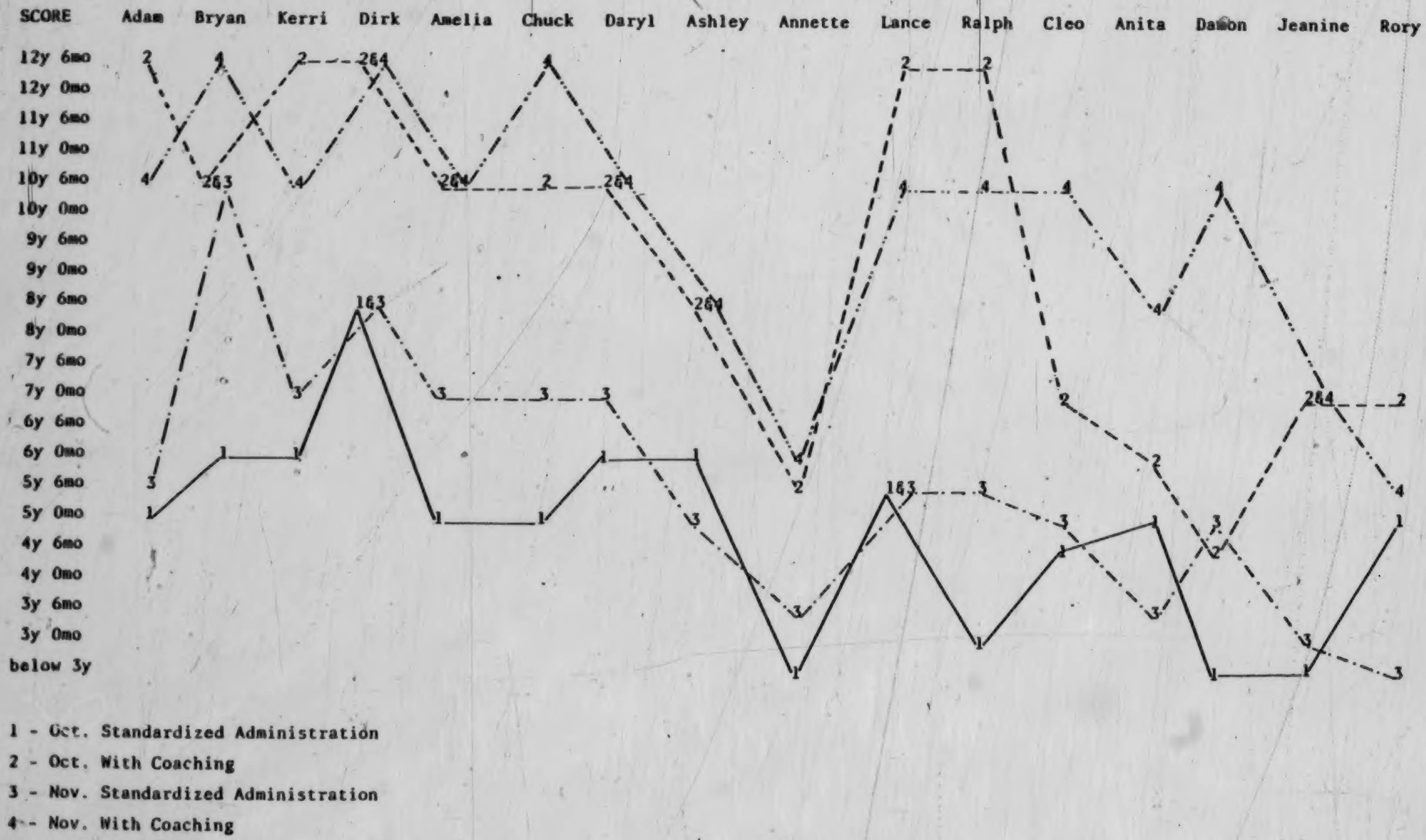
Scores from Boehm Test of Basic Concepts



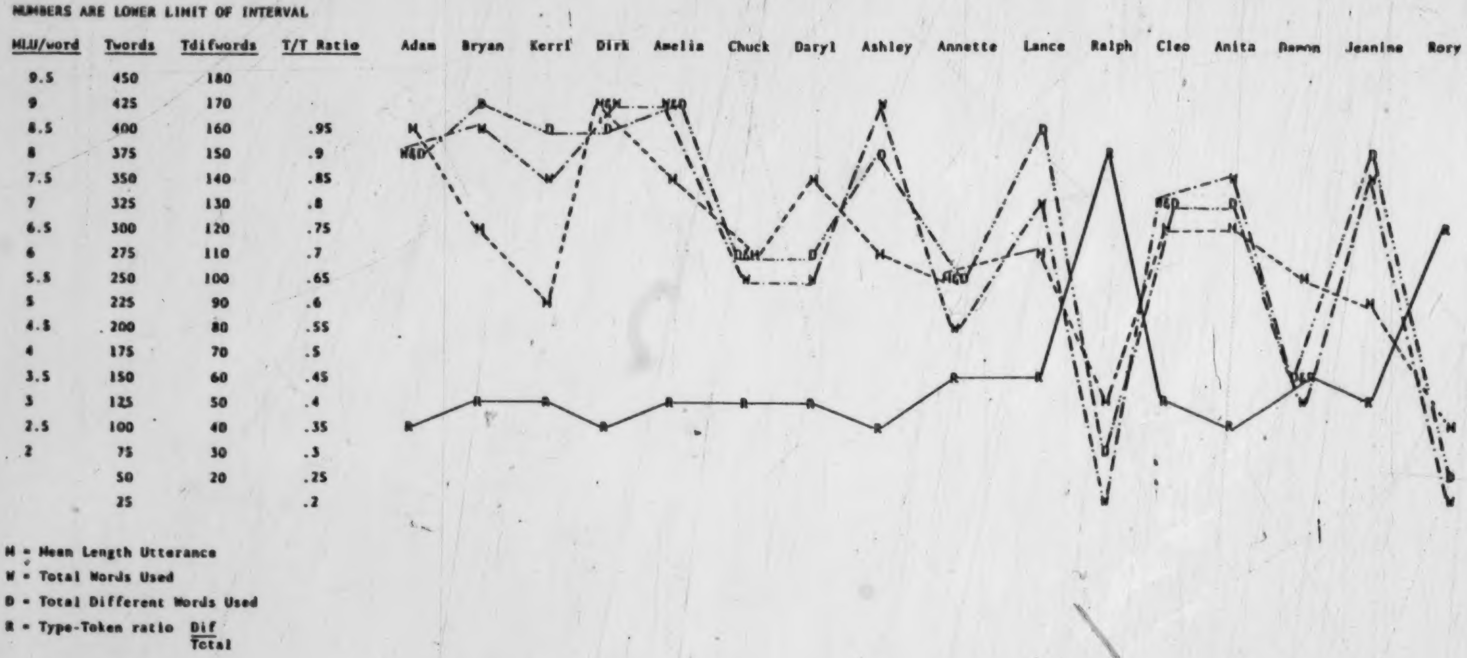
Scores from TOLD sub-tests



Scores from Picture Association sub-test of Hiskey Nebraska



Scores from Lingquest Analysis



between conceptual development and communicative competence became evident frequently throughout this study and is discussed in greater detail in Chapter Six.

Observational and Ethnographic Data

In the textual material summarizing each child's performance, several specific standards of competence were stated on the basis of the ethnographic and observational information. These are stated as specific criteria to accurately convey the high degree of cognitive, social and linguistic complexity that each represents. In these statements each criterion has been stated in the positive, i.e. evidence for competence. This also implies a continuum, a range that encompasses many levels from incompetent to extremely competent.

Criteria of Communicative Competence

The preceding section summarized the quantitative evidence obtained across children. This section will summarize evidence contributed by the ethnographic and observational aspects of this study. Across children the following criteria were cited as evidence of communicative competence.

To be considered communicatively competent children will -

Play cooperatively with other children to some purpose, incorporating materials and sustaining a theme for a suitable period;

Understand the ideas of others well enough to follow the action, or collaborate in the play development;

Alternate between leader and follower roles as the activity dictates. (In many cases, non-involvement was seen as the lowest level, the role of following was viewed as the second level of competence, directing was the third level and collaborating was the highest of these levels.);

Abstract and apply critical information when relevant information is supplied. (This characteristic was best typified during the visual analogies coaching involving the Picture Association sub-test of the Hiskey Nebraska.);

Identify and express critical components of own knowledge when asked a question, i.e. central rather than peripheral information;

Express own ideas, requests, information in a way that can be understood by others;

Employ oral language to initiate or maintain social interaction;

Protect activity from unwanted interference;

Resolve disputes through negotiation;

Adapt speech style to demands of situation -- e.g. the role being played or the age of the listener;

Display and comprehend intent in the communicative context;

Respond to the constraints of the situation. (Restrict story re-telling to the content of the book.);

Accurately synthesize and re-tell most of the main ideas of a story including implied meanings;

Understand directions with a minimum degree of clarification and apply these directions when the identical or very similar activity recurs;

Apply learning from other contexts (home, daycare, playschool) in the kindergarten context -- remember nursery rhymes, use scissors;

Learn skills and information after having adequate opportunities to do so;

Learn classroom routines after adequate introduction. Remember when they apply and be able to implement minor modifications in these routines;

Obtain assistance appropriately and purposefully.

A review of the previous list shows that many of the items are similar; a grouping of items, however, would obscure a critical factor: all criteria listed above occur in social interaction; they are complex displays of communicative competence in a social activity context. The ubiquitousness of social context throughout this research evidence will become increasingly apparent in the following chapter and will provide the foundation for the concluding statements.

Summary of Chapter Four

This chapter began with both quantitative and qualitative information about each child, which provided the first level of integration of evidence from three conceptual perspectives. This evidence was then summarized as it occurred across the class of children. The resultant compilation of information across children made three critical facts evident. First, tests of morphology, syntax, and vocabulary did not account for the teacher's perceptions of communicative competence. Second, the test of concept development came the closest of the standardized measurement procedures in accounting for the teacher's judgments. Third, the indices of communicative competence reported in the textual summaries of each child were all complex integrations of language, social and conceptual abilities situated in social interactions. These conclusions, augmented by information from the context as detailed in the following chapter, form the basis of the concluding statements, specified in Chapter Six.

CHAPTER FIVE: Evidence from Context

Introduction

During the first week of this study a turning point occurred which influenced all subsequent evidence and analysis. This critical change, detailed in Chapter Three, involved foregrounding the teacher's perspective to form a lense for viewing other information. More specifically, the researcher recognized that the teacher's criteria for communicative competence related directly to the kindergarten context and its complex social, language and conceptual activities. As a direct result the entire kindergarten milieu and the judgment of the teacher assumed greater importance to this study. This chapter details information regarding the contributions of the teacher and the context to the judgment of communicative competence in children.

Since the selection of school as the site and a teacher as judge introduced a specific perspective to this research, the following information describes the personal and contextual characteristics which influenced the appraisal of children's communicative competence. The teacher-researcher discussions of video-tapes are the primary source of the information summarized here; these were augmented with interpretive information and explanations of implied understandings. The information is organized into these inter-related topics: school as the perspective of judgment, performance as evidence of competence, context: an influence on judgment, and information from inference.

School as the Perspective of Judgment

The judgment of communicative competence implies a comparison to a set of criteria; these criteria provide evidence of the implied goal. When a study of communicative competence takes place in a kindergarten, the perspective is understood to be the goals of the school.

Evaluation of Progress

Teachers make judgments about children continuously. They do this to control the "gates" to facilitate each child's learning. Most of this evaluation is informal and cumulative. As this teacher explained, "I think it's just a day after day kind of thing. Where little things are happening and they all come together. Sort of a picture because you're seeing it happen a lot."

It was apparent but not surprising that the teacher had more information on children about whom she had concerns. It was as if more information would help solve the puzzle. For children progressing normally the additional information was not as critical and thus not sought as energetically. However, information helpful to understanding all children was welcomed and applied.

The judgment of a child's achievements was seen as a responsibility of the teacher, but low levels of achievement by some children were sometimes obscured from other children. Since the kindergarten program emphasized learning centers and play, it was possible to adapt levels of difficulty to levels of development. As the teacher explained "One of the nice things about kindergarten is you don't have to really establish who is smarter than anybody else because lots of the things develop so that nobody but myself knows whether they know something or they don't know it. Sometimes it shows up but very little. You can set things up so the child who is not achieving much can be just as successful as the bright kid."

Evaluation for this teacher was a dynamic, interactive process based on a range of factors. Formalizing this for report cards etc. introduced an artificial stability to statements about a rapidly developing child. She explained, "That's why I hate reporting on kids at this age. You can check and say he doesn't know this and doesn't know that, and two days down the road he shows you up and he does know it. You know they learn so quickly and we can't do testing all at the very last minute."

Relative Standards: The Gauge for Judgment

When judgments about children's communicative competence are made the goals of the context and the judge's experience with children both influence the judgment. In the teacher-researcher exchanges the bases for comparisons were implied but identifiable in many of the conversations. In describing abilities of a child two prevalent teacher-developed standards recurred. First, "He/she should know that by now" which compared a child to the prototype of the category into which the adult had classified this child. At times the sub-category to which he/she was being compared was apparent, e.g. "Even though the child had never used scissors at home, we have used them for three months here, so he/she should know how to cut by now." The prevalent standard for judging behavior referred to this particular class of children, e.g. "All the other children know how to turn over their nametags, so he/she should know that by now."

The other standard, held more by the teacher, but understood by the researcher, was "That's what I'd expect of him/her". This seemed quite established by the fourth week of the study, the end of the second month of the school year. Each child had in some way been categorized so that some predictions could be made. At times the adults expressed surprise when occurrences fell outside these predictions, as when Rory sustained a story line in cooperative play. The ability to predict was constrained, however. Because the classification of children remained partially developed, performance on some activities could not be pr[illegible]d. The teacher had apparently developed certain expectations for activities and interactions which occurred daily, e.g. playing with other children, putting on one's own shoes, etc.. For other activities, however, she did not have the necessary information to classify the child's behavior and predict related performance.

The Kindergarten Program as the Context of Judgment

The implications from the kindergarten program to the judgment of communicative competence were two fold. First, the goals of the kindergarten, both academic and social, provided a perspective against which to gauge a child's performance. Second, the children's performance within the context provided information about their ability to adapt to the demands and constraints of school.

Judgments about children are formulated by teachers for some purpose -- to open "gates", to facilitate the children's learning. The "gates" which this teacher selected and the access of children to these "gates" corresponded to the goals of the kindergarten program. In addition, the attribution of success or failure to a particular child depended upon whether the child benefited from the learning context and whether he/she benefited from specific modifications to facilitate that learning. Schools involve group learning; the child who is able to learn from group instruction will be seen as more potentially competent as a student. The child requiring individual help will be viewed as more limited because the school has limited opportunities for individual instruction.

Goals as Perspective. The learning goals of different kindergarten programs vary in their degree of pre-academic emphasis. This teacher believed in both an academic and social orientation: "I believe in a balance. There should be some academics going on, but the main thing is social." Similarly, she reported with disgust that "a member of this staff said to me 'no child should ever repeat kindergarten' ... you don't learn anything there". These goals provided a perspective for her comments on children, as well as a perspective on the children's levels of achievement in relation to these goals.

Class Placement. Sometimes the teacher changed a child's class placement to better serve the child's needs. A change usually meant moving between morning and afternoon kindergarten sessions; it might also have meant modifying schedules with either the day care housed in the school or the grade one class. A critical factor in these decisions was teacher load since a child could receive more individual teacher attention when a teacher aide was available and when there were fewer children requiring individual attention. This decision to change class placement illustrated the dynamic, continuous nature of the judgment process, because a judgment of the child's performance led to the change, but also the child's improvement after this change was a focus for subsequent appraisal.

Repeating Kindergarten. For some children a second kindergarten experience had been recommended. In some of these cases the child appeared to be a marginal learner and the teacher was aware that a special education referral might occur during the second kindergarten year. For others, however, the teacher conjectured that the child might be able to progress normally if allowed to mature another year before facing the demands of grade one. Each of these decisions rested on the appraisal of the child, classification on the basis of the appraisal, and prediction on the basis of the classification.

Performance as Evidence of Competence

To be judged competent, the child must provide evidence of ability. The context and judge provided the perspective, but the child must furnish the actual evidence upon which competence is judged. Furthermore, all evidence the child provides is considered, but some aspects of performance are given greater weighting in the judgment process.

Indicators of Maturity

Across classroom contexts some specific characteristics were foregrounded in the teacher's attention and contributed to a general perception of each child's level of development. One set of factors directly paralleling Vygotsky's principles was the children's ability to control their own behavior, e.g. their development of volitional attention and cooperative play. The second was the inference of maturity from specific salient abilities, e.g. cutting with scissors. These abilities influenced teacher judgment more strongly than the specific performance suggested; they appeared to be symbolic of levels of development.

Volitional Attention. The ability to pay attention was an important characteristic of maturity; attending to a story and following directions were evidence of pre-academic development. As the teacher explained:

> They are sitting at the table and you are giving them directions where they have to listen and you can see who can follow your directions and who doesn't have a clue what they are supposed to be doing because they weren't listening to you in the first place.

Mastery of Routines. Another indicator was the ability to learn routines. The first month of the year emphasized school routines -- where to hang coats, how to line up for recess, how to select a center, etc.. A child's ability to learn and consistently follow these routines provided evidence of the child's developmental level. The child who not only observed the routines immediately but also executed them with ease displayed an even higher level of development.

Cooperative Play. Maturity was especially evident during play. The more advanced children were able to sustain play longer and develop more complex themes. In the teacher's words "They've got the social skills to work together." These social skills were pragmatic because "I think they are still at the 'me' stage, you know, do your thing, and the cooperativeness only comes through because of necessity. You know, you can't all build your own thing sometimes." In the social interaction of play, mature children were also able to deal with their own anger and the interference of others through verbal persuasion or by play acting aggression: "Those more mature kids are able to handle that, and not haul off and hit him (Rory)." Similarly, they also adapted to the lesser abilities of a peer.

Use of Scissors. One characteristic that served as a useful indicator of maturity was the ability to use scissors. The teacher explained, "It's funny. Cutting should have nothing to do with how you think, but yet it does, when you see the kiddy can't cut nine out of ten the child is also weak in all the other skills." This was the most obvious of several observations in which the impact of the child's performance exceeded the importance of the skill to kindergarten success. As the teacher indicated, the skill itself was moderately important, but the skill as a symbol of probable success or difficulty was very powerful.

Children's Behavior

Just as children learned the routines of kindergarten, they also learned the behavioral constraints. At first the teacher's role was to teach these novices the parameters of acceptable behavior in kindergarten. The teacher's second responsibility was to respond to children's intentional violation of these rules. This behavior management was interactive; the teacher's role was to help children achieve their purposes within the necessary constraints of the classroom. For example, during the final week of this study the children were becoming increasingly excited about Christmas and the teacher was required to enforce regulations more actively. As she explained, the children "are getting higher and higher and you are having to lower the boom every once in a while and say 'look, you're not going to do that'". Consequently, although children's abilities to operate within these constraints were appraised, the teacher's judgment was tempered by the inferred reason for misbehavior and the child's pattern of improvement. For example, Bryan, who was viewed as among the more competent children, demonstrated facility with language and the understanding of concepts; he did not operate within the constraints of the classroom. This contrast showed that social competence was separable from communicative and cognitive competence. The frustrations of re-directing Bryan's behavior had not obscured the teacher's recognition of his communicative strengths.

This separability of behavior and communication corresponded to the teacher's pervasive conviction that children's behavior is purposeful and reasonable if the adult comprehends the child's rationale. She explained that children's responses counter to adult wishes may not be actual misbehavior but rather the child expressing "I don't feel like it today". This also applied to children demonstrating consistent behavior problems. She explained, "You know so often you wonder why these kids act like they do. When you start hearing what's happened to them in the past then you start to say, 'Well, it makes sense'."

The teacher viewed behavior as changeable, but suggested that a child's peers could be less flexible. Consequently, it was important to modify children's responses before they gained a class-wide or school-wide reputation for misbehaving. Children with such established reputations had fewer opportunities to improve because other children blamed them for even accidental lapses and excluded them from group activities. To minimize peer involvement during episodes of misbehavior this teacher quietly removed the offender from the group so the others could proceed. She would then speak to the specific child quietly and firmly, which she described: "It's the best way ... Especially if you're cross ... keep it quiet but sharp. As quiet as you can."

Child Talk

The amount of verbalization varied across children and across activities. Nonetheless, most children could be categorized quite soon as "quiet" or "talkative". This degree of talkativeness seemed secondary in judging children's competence, however, because speech was seen as functional but not always essential, i.e. success could be attained in verbal or non-verbal ways.

Quiet Children. One recurrent challenge for the teacher was giving reasonable attention to the quiet children, providing opportunities for them to talk and interact in ways consistent with their basically "quiet nature". Parallel to this was recognizing that many children preferred their minor and somewhat peripheral roles in activities and that moving these children into more active roles would have been inappropriate.

Similarly, it was noted that the quiet children were the most difficult to evaluate. This was partly because they did not provide information on what they were doing or thinking to serve as evidence for evaluation. In addition, these children did not call attention to themselves, forcing the adults to make a concerted effort to observe them at all. The teacher explained, "This is what I think fools you in kindergarten. It's that the quiet ones you tend to think of as sort of weak or slow. And sometimes they are not at all. He well may come up a lot higher than I expect because its difficult to tell when he doesn't talk." Similarly it was difficult to gauge the comprehension of a quiet child because "you don't really know, if they are not talking, other than you know if they can do nice handwork ... good motor control".

Interestingly, the rating of quiet children on communicative competence suggested a consistent regression toward the mean, i.e. they were perceived as more average than test scores suggested. Dirk, who was exceptionally high-scoring on all standardized measures, was perceived as slightly less exceptional by the teacher, who had not seen the test scores. Anita, however, who was perceived as definitely limited by the researcher, was seen as somewhat less limited by the teacher. The two other quiet children, Cleo and Ralph, were ranked as near-average, which corresponded to the test scores. This suggests that the child's talk provides information for classification on either end of the ability range, but the absence of talk confirms impressions of average performance.

Accuracy as Evidence of Judgment

In forming judgments about children's competence accuracy was contrasted in two ways: 1) accuracy of form as compared to accuracy of content, and 2) accuracy of process in contrast to accuracy of response.

Content or Form. Studies show that parents of pre-school children attend more to the accuracy of the children's statements than to the linguistic forms used (Bloom & Lahey, 1978). This was evident in the reaction of the adults to kindergarten children as well. Although the adults noted markedly immature grammatic patterns as "Me go", their greater attention was focused on the accuracy of the content. Conversely, when the forms were more accurate than the content, little attention was paid to the language forms. This was most apparent in the case of Anita's story re-telling for which the linguistic analysis yielded scores comparable to her peers, but the examiner's perception was that she was "waffling" and did not understand the nature of the activity.

"Good" or "Real" Errors. A similar contrast was evident in the adult's discrimination between "good" and "real" errors. In tasks with a "right" answer, the nature of the children's incorrect responses impressed the adults. Consistently some errors were "real" errors -- the child did not know the answer. Others were "good" errors because it was evident that the child had followed a tenable line of logic or had demonstrated a personal agenda with priority. A good example was Adam's insistence on not selecting the correct card during one item of the Picture Association sub-test. Although the stimulus picture showed two predatory birds and the examiner offered suggestions and prompts, Adam consistently selected the chicken, explaining, "I don't like mean birds". Eventually the examiner asked, "If you did like mean birds, which would you choose?" He promptly pointed to the eagle, repeating "But I don't like mean birds". Clearly Adam was able to follow the logic of the exercise but had an over-riding personal preference. This is an example of a "good" error, which did not contribute negatively to the adults' evaluation of a child's performance. A "real" error, in contrast, was Jeanine's insistence that milk fit with the group of fruit. In the dialogue related to that response she did not indicate a mastery of the information or the process.

Content or Intent. A similar contrast involved the intent of the child in comparison to the words chosen, the tempering of the message by its apparent meaning. For example, some of the children's responses seemed cruel by adult standards, but neither the speaker nor recipient interpreted them as unkind. One example was a child's reference to Cleo, "I'm not her friend, but I play with her". The teacher explained that this statement probably reflected the first child's concept that a friend is "someone who lives near you".

Language or Social Speech. Another interesting contrast was demonstrated by several children with poor language skills but "good" social speech when interacting with adults. In this instance "good" social speech elicits a positive response from the adult, and both the child and the adult enjoy the interaction. Both Jeanine and Rory, low achievers on language tests, displayed "good" social speech. They both greeted the adults warmly, narrated an event from the home or playground, and used speech as a positive form of social interaction. Jeanine was especially adept at pursuing tangential topics; her narrative "Are you going to heaven with us" cited in Chapter Four was a good illustration. This social speech did not appear, however, to influence the adult's judgment of communicative development. Success in this type of interaction was attributed to friendliness but not to communicative competence.

Context: An Influence on Judgment

When this judgment was made about children's communicative competence, the judgment was naturalistic, it emerged from the children's performance in their real world. This does not negate the effect of the context on judgment, however. Just as some specific behaviors of children are viewed as more important than others, some specific activities in the classroom were more important than others. In this kindergarten this contrast was illustrated by the importance of play.

Three Categories of Cooperation

The ability to cooperate in group activities was central to success in kindergarten because large and small group activities accounted for most of the in-class time. Although the children who could cooperate in these groups were perceived as more mature, lack of cooperation was recognized as having two forms: uncooperative and non-involved. Being uncooperative was viewed as an indication of emotional immaturity; the consistently uncooperative child was considered nonetheless cognitively and communicatively competent. Cognitive and language limitations were more evident in instances of non-involvement. The non-involved children also had difficulty learning the routines, participating in the lessons, moving to small group activities, using the materials to achieve ends, understanding the activity's purpose, etc.. Thus, for these children, their general immaturity was evidenced not specifically by lack of cooperation but by lack of involvement in the cooperative venture.

Play as Purposeful Learning

This teacher valued the development value of play:

> A lot of people think play time like this is a waste of time, but it really isn't .... There's a lot of learning can go on. There are a lot of things you can capitalize on. Just getting along with each other. Learning to give and take a little.

This statement succinctly captures the kindergarten's implied goals: the goal of the school is learning; play is a means of learning.

The value of play was also suggested with the premise that children played to some purpose. It was assumed that most children had an intent in their movement and interaction. If adults asked questions casually such as "What are you building?" or "What are you pretending to be?" children responded quite candidly, providing information the adult might have been unable to infer solely from watching. Similarly, arguments among children were considered to be due to conflicting purposes. Children who wanted something from another child usually wanted the item for a reason, not just because the other child had something they did not. This emphasis that play was not random behavior elevated play as being a meaningful performance upon which to base judgments about the children.

In addition, children learned a great deal from other children. This was especially true of those able to play cooperatively. When one child was decidedly lower functioning than the others but able to participate cooperatively, this was considered very advantageous to both children but especially to the development of the weaker child. The ability of the more mature child to adapt to the weaker child, and the ability of the weaker child to benefit from this interaction, were both seen as positive evidence regarding the children's development.

Leaders and Followers

Some children were notable in that, besides cooperative play, they displayed elements of leadership. However, this leadership ability did not seem to vary directly with linguistic proficiency. For example, Rory, who scored lowest on language tests, was almost always involved in playing with other children. These children responded to his apparent intent and seemed to "fill in" incomplete information in his suggestions. Rory seemed more interested in being a participant than in controlling the action and pleased with any implementation of the ideas he partially initiated. This child displayed some very interesting theme-related improvisations which surprised (and pleased) both adults. In doing so his actions provided leadership for others playing with him. Rory's lower cognitive and language abilities were clearly augmented by some strong play-initiating strategies to which the other children responded positively.

Another child demonstrated good play skills without demonstrating comparable verbal skills. Ralph seemed to be "the third one in" and apparently was allowed to participate because he listened to the others' dialogue and followed group rules. He was never seen to introduce changes or take sides in debates over development. His participation was, however, social and consistent.

Despite these exceptions, the two girls who demonstrated the most leadership were also those with considerable speech/language proficiency. Notable for both of these was the "body language" accompanying forceful statements. For example, they were quite proficient in preventing others from disrupting their projects by telling them to "Get Out" or "Stop" with their eyes blazing and either their hands on their hips or one arm outstretched, palm outward, showing body stance that supported their speech. This ability to solve difficulties verbally was evident in the more mature children. However, in the instances cited previously in which there was disparity between emotional and language development, the ability to prevent disruption seemed to be attributed more directly to emotional maturity than language maturity.

Adult Constraints on Play

One factor that impacted upon the children's development of play themes was adult constraint. Four such constraints were specifically mentioned: restriction of movement between play areas, time schedules, limitations on children's talking, and removing play from the child's school program too early. Of these, the use of time had specific implications for judgment of competence as the program had a schedule that reflected the time an average child might need to complete a play activity. Thus those who could not sustain play very long were at "loose ends" before the time was over, and those able to develop more intricate themes did not have time to fully develop their ideas. Due to the teacher's awareness of the constraints of a situation, a child's performance was judged relative to these constraints. Furthermore, limitations attributable to the setting might not influence the teacher's judgment of the child.

Information From Inference

Direct appraisal of performance in context provides evidence for teacher judgment; so do less explicit factors. As the result of learning, beliefs, and experience, the teacher interprets ancillary information and infers additional information regarding a child's level of competence.

Parents

Knowing a child's parents helped this teacher estimate how much support the child received with learning and how extensive the child's pre-school experiences had been. One explanation captured the importance of pre-school experiences:

> It really shows up those who've been to playschool. Those who've had moms at home working with them and those who sort of existed without anybody trying to give them some formal sort of training. And you get them once in a while -- where they come and you swear they've never been taught anything.

During the discussions of these kindergarten children their parents seemed to fall into three relatively distinct categories. One group of basically caring parents were experiencing the same difficulty with their child as was the school and seemed unable to contribute to the solution. These parents may or may not have expressed their degree of frustration. Another group of parents, also caring parents, had lives complicated by economic or family demands so that they were unable to contribute directly to their child's experiences with any frequency or consistency.

The third group was actively involved in assisting their child's progress and had done so prior to the child's entry in kindergarten. Among this group were parents willing to be involved in organizing and maintaining the parents' group for the kindergarten. Children from such families were likely to have had some experience with books, pencils, crayons, and scissors. These parents' cooperation in most school-related activities was anticipated.

These categories were not idiosyncratic classifications by the teacher, as they were often used in communication with the researcher and other teachers, as typified in the phrase "They are the kind of parents who _______". This information was used to infer a child's previous experiences and the support the child might receive for school learning. Despite these functional differences, the teacher viewed all the parents as caring for their children; they just had different degrees of commitment, ability, availability and school-orientation.

Adult Role in Child Learning

The dynamic assessment of competence, which was discussed previously, was especially evident when the adult made judgments about the child's competence on the basis of the adult's own performance. Returning to the premise that learning is the purpose of the school, then the role of the teacher is to cause learning. In that process, the adult varies the demands, provides information and controls the situation to facilitate learning. As the direct result of his/her own effort the adult judges the performance of the child. Succinctly, the adult answers the question "What did I have to contribute for the child to be successful?" The corollary, of course, is "What does that tell me about the child?"

By its very purpose, adult assistance varied across children. For some children the teacher served as a subtle facilitator of play either by supplying appropriate materials or helping them explore ideas. Some children seemed to play more independently if the adult asked questions from time to time to help them explore directions in which their play might develop. This information which adults sensed from their own effort in an interactive context was also a contributor to the judgment about children.

Adult Effort. One characteristic of which adults were especially aware was effort, specifically the amount of adult effort necessary for the child to succeed in a given activity. The form of the adult involvement varied, but might well be reported as "I really had to work at getting Rory to '...". The degree of adult effort was a characteristic independent of the adult's purpose, a perception of exertion across interactive functions.

Adult Functions. There were specific functions also identifiable during the adult-child interactions. These were encapsulated most completely in the Hiskey-Nebraska tutoring activity, but had identifiable parallels throughout all adult-child interactions. The functions identified were the need for reassurance or attention, maintaining the child's direction of progress, focusing on salient features, redirecting, and substantial intervention.

One adult role involved the individualization of reassurance or attention. Sometimes a child, fearful of change, solicited teacher reassurance. Others sought teacher attention to acknowledge their success or share their experiences. Seeking reassurance or attention from an adult was considered a normal, unremarkable behavior unless the degree of fear or attention-getting demonstrated by each child exceeded the adult's subjective norm for this behavior. Ralph and Jeanine were identified at different times as soliciting greater adult attention or reassurance.

A second adult role was maintaining progress. Children worked with varying degrees of independence, and those degrees of independence varied across activities. Often the adult would become involved in the child's work primarily to keep the child focused on the current task. This was the least intrusive level of adult involvement in a child's activities.

Focusing on salient features was a third adult function. At certain stages in a variety of tasks children seemed to pause, look around, and convey that they were trying to determine how to proceed. Some children shortened or eliminated this search and asked an adult or other child what to do next. Adults viewed this as a typical intervention which was part of normal learning. A child who never required such assistance was likely to be very capable and ready for more challenging activities. A child who was a generally immature learner typically required greater assistance than routine focusing.

Of the adult functions described here, effort was especially identifiable during re-direction, the fourth adult function. Children seemed to display a characteristic analogous to the concept of force in physics. One child pursuing an activity casually strayed outside the accepted parameters of behavior and responded promptly to a routine reminder. Others seemed to enter an area with great force and momentum, perhaps intending to harm other people and destroy their play. These required a great deal of teacher energy in either verbal persuasion or bodily constraint before they were re-directed. Thus the child's behavior, and also the force and perceived intent of the behavior, elicited adult re-direction of varying effort. The adult's classification of the child on the basis of previous contacts influenced the level of force with which the adult entered the interaction. Escalation of adult energy occurred if lower levels of intervention were unsuccessful.

Some children were not successful with routine adult assistance and required substantial intervention. As the adults became more familiar with specific children, they provided substantial assistance immediately, predicting that minimal assistance would not be sufficient for child success. A decision of this type led to Rory and Jeanine being placed in separate groups to allow adequate teacher attention to each. The nature of assistance typically involved the adult "walking" the child through each step of the process, providing varying degress of direct assistance according to the child's ability to problem-solve independently. This parallels Wood's, Bruner's and Ross' (1976) scaffolding, as discussed elsewhere. A very significant occurrence in each instance of substantial intervention, however, was that the child always performed the final step toward completion.

Summary of Chapter Five

Judging the performance of a child is a complex process. The contributing factors themselves are complex, and the interaction and relative weighting across factors vary. The evidence from context in this study suggests that the following considerations were among those contributing to the teacher's judgment of the children's communicative competence.

First, the purposes of school provided a perspective for judgment. Since the school's goal was learning and the teacher's charge was to facilitate learning, judgment of children was in relation to their competence to learn. Within this perspective children were judged according to specific reference groups, e.g. age peers, children with similar experience, and the demands of the kindergarten program.

Although the goals of school influenced the perspective, the children themselves provided the evidence for judgment. Their general maturity, as evidenced by such factors as attention, cooperative play, and behavior, was one important factor. Another was their use of oral language, their talk, -- its functional effectiveness and accurate content.

The goals of school and the performance of the children contributed to the judgment of competence, but this appraisal was consistently tempered by other considerations. One of these was the kindergarten milieu, the framework and stage for performance. Classroom-based abilities such as cooperation, play and leadership were considered in determining a child's abilities. Other important information was inferred. The teacher's understanding of the child's home and experiential background suggested developmental information about the child. Similarly, the child's performance on some activities had specific implications for his/her achievement on other tasks.

Just as judgments were tempered, they were also tenuous, because change in young children could be very rapid. Furthermore, competence could be demonstrated in different ways by different types of children, e.g. quiet as compared to assertive children, and it was not always possible to predict how a child would perform in one situation on the basis of other performances.

This chapter has provided far-ranging information about the kindergarten classroom, the context from which the judgments of communicative competence emerged, and about the beliefs of the teacher, who served as judge. From this information it can be concluded that the appraisal of communicative competence results from a complex, dynamic judgment process which includes the perspective of the evaluator, the goals of the context, and the performance of the child being judged.

CHAPTER SIX: Conclusions

Introduction

Humans cope with their complex environment by organizing phenomena into categories. This ability emerges in the infant and develops with increasing complexity through adulthood. The process of classification also extends to other people; adults assign people to categories, employing the processes of attribution and categorization. A specific form of classifying people, the judgment of communicative competence in kindergarten children, has been the focus of this study.

In school the competence attributed to a child influences the opportunities provided to facilitate learning. Some children are allowed to play alone in a secluded spot, some are referred for psychological assessment because of teacher-originating hypotheses of retardation or giftedness. These judgments are not capriciously assigned to children, however, but result from the child's performance in relation to the classroom context. The competent, facilitative teacher bases decisions about children on frequent, considered observation of these children. The question "what serves as evidence for the teachers making these judgments?" returns the topic once again to the question of this study: What constitutes communicative competence in kindergarten children?

The quest for the answer has involved three different methodological orientations. The first was the development of a priori statements regarding the demonstration of communicative competence in the kindergarten context. These statements resulted from professional literature and personal experience, and, according to Bloom's (1978) description, were considered to constitute an etic first step. The conceptual bases from this etic stage have been: 1) the sociogenesis of language and thought as represented by adult-child tutoring, 2) the standardized measurement of language, and 3) the judgment of the teacher regarding the child's communicative competence.

The second methodological orientation, the emic approach, resulted directly from the first, as the promising sources of information were explored amid one class of sixteen kindergarten children and in cooperation with their teacher. The third, which will be presented in this chapter, results logically from the previous two approaches.

This chapter will constitute an etic statement of new understandings. More specifically, the question began in the personal experience of the researcher; then the possible sources of answers were identified in relevant literature. An application of these directions resulted in a research methodology that had three conceptual focuses. Upon delineation of the research plan, the resultant procedures were implemented in the cooperating kindergarten. As expected, the processes situated in that classroom changed the understandings. One of the conceptual approaches was foregrounded, one led to modifications in the original descriptors, and the third was shown to have indirect rather than direct relevance.

As a consequence, the etic process, the delineation of specific principles that form the basis for study, can now be repeated. This chapter will serve to reify statements begun in Chapter Two. It will also augment these with new understandings from the research process, and organize these so that subsequent research and application of this information can be instituted. The potential of these statements, i.e. the topics for further research and the implications for application in schools, will be discussed in Chapter Seven.

Statement of Conclusion

It is the purpose of this chapter to return to the original question: "What constitutes communicative competence in kindergarten?", and present answers in the form of statements which reflect the perspective of the research design and evidence from this study. The conclusions incorporate quantitative changes to orginal percepts such as the modifications of the functions of scaffolding to form a matrix. The conclusions also include qualitative changes. For example, the process of teacher judgment became a "lense" through which to view the results of standardized language measures.

Interpretation of the information can be assisted by recognizing that the statements tend to form clusters around central topics. Some of the statements relate to the specific goals, purposes, and context of school. Some address the characteristics of language performance contributed by the children, the information upon which judgments of competence are directly based. The third cluster can be seen as the judgment process, the human characteristics of organizing phenomena into categories and the role of these processes in the judgment of competence. Concisely stated these clusters of topics and the specific statements within each cluster are the following:

COMPETENCE IS JUDGED RELATIVE TO THE CONTEXT: THE INFORMATION IT PROVIDES AND THE GOALS IT IMPLIES.

Statement I

The goal of the school is to facilitate learning; competence is judged in relation to this goal.

Statement II

Learning is the culmination of three stages observed in children: development, activity and learning.

Statement III

The judgment of communicative competence rests on a collection of factors. All of these factors have their origin in activity/social interaction and the negotiation of shared meaning.

COMPETENCE IS INFERRED FROM PERFORMANCE:

Statement IV

Among the factors contributing to the judgment of communicative competence are those described by Wood, Bruner and Ross as roles of scaffolding and Wertsch as stages of independent problem-solving.

Statement V

Other factors contributing to judgment of communicative competence relate to levels of social and cognitive complexity. Cognitive competence is more closely associated with communicative competence than is social competence.

Statement VI

Measures of semantics, syntax, morphology and phonology do not account for judgments of competence but appear to contribute indirectly.

THE PROCESS OF INTER-PERSONAL JUDGMENT CONTRIBUTES TO THE RESULTANT APPRAISAL OF COMPETENCE

Statement VII

Competence judgments develop according to principles of attribution and categorization as integrated by Feldman.

Statement VIII

Judgments of competence involve the comparison of a child's performance to a subjective norm related to the demands of the task.

Statement IX

Components contribute to judgment of competence in varying ways, e.g. some derive their power from their symbolic value.

Analysis of Statements

COMPETENCE IS JUDGED RELATIVE TO THE CONTEXT: THE INFORMATION IT PROVIDES AND THE GOALS IT IMPLIES

Competence is determined in relation to the context in which the judgment occurs. The impact of the context in this evidence was two-fold. First, it constrained the evidence available to the teacher. In most cases the teacher did not have - or want - information regarding sibling relationships, sleeping patterns, or economic costs of the children. Second, it implied goals, the perspective from which to gauge competence.

Competence is not judged as an academic exercise by teachers, it is conjectured for some purpose. The teacher, as gatekeeper, needs to judge the child's ability to benefit from specific experiences, need for specific facilitative activities and readiness to participate in self-directed learning. Thus competence is judged in relation to the goals of the school. Competence is really "competence to __". In this specific classroom competence would mean competence to learn socially and conceptually, express the learning in identifiable form and participate in self-directed learning.

Discussion of Statement I

The goal of the school is to facilitate learning; competence is judged in relation to this goal.

One general characteristic noted for each child, typically described as learning, is understood as the general goal of the school. In this particular kindergarten all activities were directed toward some form of learning. Although the type of learning and the critical aspects of learning varied across activities, all were directed toward this goal. Even activities planned "just for fun" were included to make school attractive to students so they would participate enthusiastically, i.e. learn to like school.

Discussion of Statement II

Learning is the culmination of three stages observed in children: development, activity and learning.

In viewing this perspective of the school sequentially, the first stage refers to the child's level of development, the specific biological, environmental, experiential strengths and weaknesses each brings to the school context. In this study Rory had limitations which constrained his level of achievement in the kindergarten environment. Adam, on the other hand, had previously acquired strengths which allowed him to demonstrate higher levels of performance.

The second stage is activity -- what children do or fail to do. More specifically the child's interaction with the environment -- toys, other children, school routines, teacher instructions, etc.. For the question addressed here, activity has been the most critical of the three stages, because it has served as the ground upon which judgments of both learning and development were based. Thus the teacher's perception of a child's activity provided the direct evidence upon which to form judgments of communicative competence. Specifically, activity provided the evidence for inference.

The third stage sequentially, and the result of the previous two, is learning. In some ways the division of development from learning is artificial, because concepts learned become an aspect of the child's level of development, i.e. learning advances development. Learning in the school context, however, also implies that the teacher or school had an active role in its acquisition. Olson (1982) explains that "the effects of schooling are summarized in terms of what the children have learned from those things taught ... . What is learned is a joint function of what the child already knows and what the teacher is trying to teach him or her" (p. 75). Thus, learning is the product of schooling, the goal of the institution, the charge of the teacher. This, the culminating stage, is the purpose of the school's existence and the completion of the statement "competence to -- learn".

The division of learning from development, or the division of acquisition of knowledge from the status quo, also reflects a position espoused by Vygotsky and described by Wertsch (1983) as the "psychological reorganization of development" (p. 20). This suggests that the effect of learning on development is not additive but rather that learning reorganizes development, producing qualitatively different mental functions. Thus the identification of learning as a discrete stage in the processes of school reflects the importance of these changes. This qualitative reorganization was noted in the description of the children's performance in Chapter Four. The teacher and researcher agreed that the performances of the average children differed qualitatively from the performances of the markedly advanced children and from those of the less able children. In other words, learning produces contrasts that can be judged as being qualitatively different from less advanced levels of mental functioning.

Discussion of Statement III

The judgment of communicative competence rests on a collection of factors which have their origin in activity/social interaction and the negotiation of shared meaning.

Social interaction, which includes the interaction between two people and also the interaction between one person and the symbols, objects, institutions and rituals of the society, is the source of evidence which leads to judgment of competence. The importance of both social interaction and negotiation of shared meaning to the judgment of communicative competence was best illustrated by the teacher consistently citing as evidence of competence the children's performance in the kindergarten context. More generally, all evidence in this study arose from social interaction and negotiation of shared meaning, and these complementary characteristics were evident at all developmental levels. As an illustration, both Adam and Rory were eager to tell adults about their experiences. Even quiet children like Anita and Ralph initiated conversations occasionally, clearly intending that they be understood and thus that meaning be shared. Tyler (1978) captured the essence of this statement by noting that "the fundamental presupposition of speaking is that it is addressed to some other who can come to an understanding of what is said" (p. 141).

Various types of shared meaning were encapsulated in the specific activities of this study. The tutoring component required the child to understand and apply the guidance being provided by the adult i.e. the child had to understand the adult's meaning. In contrast the vocabulary test required that the child explain definitions so that the adult could comprehend the child's meaning. The third activity involving shared meaning was additionally constrained by the text material. In this situation the shared meaning originated with the story but was also shared with the examiner. It was in essence a sharing between the author and the adult and child.

COMPETENCE IS INFERRED FROM PERFORMANCE:

The judgment of communicative competence is not additive, it does not reflect totals on a check list or as Siegel (1975) stated "The child's parents, peers, and teachers do not react to his speech in terms of some numerical index" (p. 124). The exact factors which determine the teacher's judgment remain unspecified, but some characteristics are evident. First, some of the factors described as the conceptual bases detailed in Chapter Two account for the judgment of competence; others do not. Furthermore, some characteristics have greater importance in determining teacher judgment than do others. It can be stated, however, that children provide specific evidence regarding competence during all aspects of the school context. The impact of their performance on the teacher's judgment of competence rests on the inferences that result.

Discussion of Statement IV

Among the factors contributing to the judgment of communicative competence are those described by Wood, Bruner and Ross as roles of scaffolding and by Wertsch as stages of independent problem-solving.

In Wood's, Bruner's and Ross' delineation of the roles of the adult in scaffolding, the six processes which the adult contributes were summarized as recruitment, reduction of degrees of freedom, direction maintenance, emphasis on relevant features, supporting, and modeling. When this delineation of adult roles was applied to the evidence of this study, it showed the need for modification of the six roles. In the process of comparing these scaffolding functions to the transcripts of the tutoring sessions, several functions often co-occurred. For example, direction maintenance and reduction of degrees of freedom were often employed simultaneously. It appeared that the examiner viewed the child as having an accurate approach to solving the problem but needing some help in organizing all the variables being presented. Due to the frequency of this co-occurrence, it was concluded that the Wood et al. listing included both purposes and strategies. In the example provided, the examiner's purpose was to maintain the child's direction of problem solving; the strategy to achieve this was reducing the degrees of freedom. It is likely that the difference between the incrementally more difficult tutoring tasks of this study and the single task employed by Wood et al. contributed to these differences in categorization.

A solution was to modify the list of functions by separating those judged to be purposes from those thought to be strategies and placing these on two axes of a matrix. In addition, the category "check comprehension" was added to the strategy axis of the matrix because some of the examiner's comments were directed toward determining the child's perceptions and intent. One additional reorganization from the work of Wood et al. was the sub-grouping of three examiner strategies under the super-ordinate heading "structuring" to convey the similarity between these three sub-strategies. The resultant matrix and examples from the tutoring transcripts appear in Figure XIX.

Figure XIX

Adult Scaffolding Matrix

		Purposes:	
	A	B	C
	Recruit & Initiate	Maintain Direction	Redirect
Strategies			
1. Focus Attention			
2. Check Comprehension			
3. Evaluate Feedback			
4. Structuring:			
a. Reduce Freedom			
b. Provide Info.			
c. Mark Critical Features			

The following adult statements, excerpts from the tutoring transcripts, illustrate the most commonly used categories. Each is preceded by the code for the appropriate matrix cell.

B1: Now we go to the next page

C2: You want a safe bird?

B3: You're doing good thinking.

C4a: You just choose one card like this.

B4a: Let's see what you can find to go there.

B4b: This bird eats baby birds.

B4c: They live on both.

C4c: But we want another mean bird.

Analysis of the tutoring interaction has suggested an additional characteristic, effort, influences the adult's perceptions. More specifically, perceptions relate not only to the purposes and strategies of the adult's contributions but also to the amount of adult effort necessary to achieve the desired response from the child. In the transcripts this could be identified by repetitions and rephrasing; in the tape recordings vocal inflection and emphasis were also evident. Within this matrix the degree of effort could be captured using a three level scale with 1) conveying that the tutor's comments were less important and possibly tangential, 2) being typical effort, and 3) describing deliberate effort against the child's apparent resistance to change.

This pertinent information, the degree of adult effort, also reiterates the interactive nature of adult judgment. The salience of adult effort illustrates that the adult's response stems not only from the child's performance but also from what occurs in the tutoring process: a sense of one's own effort in achieving the child's understanding arises from the dynamics of the interaction.

This revised matrix with the addition of a coding system to express the degree of adult effort, was capable of accounting for all adult statements from the tutoring aspect of this study. It is important to note that this accounted for only the adult statements; this limitation will be discussed later in this section.

In Wertsch's discussion of the stages in development of independent problem-solving the focus was on the child's apparent ability to benefit from conceptual assistance. These contributions of the child to the shared understanding were described by Wertsch as developing through four stages: 1) the child is unable to interpret and apply the adult's statements, 2) the child responds to specific adult information but does not comprehend implications for the entire task, 3) the child follows non-explicit directions or hints and assumes some self regulation and 4) the adult does not provide any strategic assistance.

These stages stem directly from Vygotsky's (1934/1962) principle that learning progresses from shared activity to internalized control. Thus Wertsch's four stages express the degree to which the child is dependent upon the adult's assistance. For the most part each test item for each child could be classified according to Wertsch's stages. The exception was a group of items on which the child's responses were ambiguous. When an ambiguous response occurs, a judge typically infers that the child is actually responding in the same way he/she has performed previously. This tendency is encouraged if the scale requires the judge to discriminate between the child's habitual level of performance and other levels of development. Thus, it is recommended that specific application of Wertsch's stages in classifying performance also include a category titled Ambiguous to reduce the halo effect in interpreting non-classifiable occurrences.

The tutorial sessions in this study were consistent with Wertsch's evidence, but these categories also excluded important information. One important characteristic excluded from Wertsch's stages was the classification of an error resulting from adequate reasoning but erroneous facts as different from an error resulting from errors in the problem-solving process. A good example of this was contributed in the October administration of the Picture Association sub-test of the Hiskey-Nebraska Test of Learning Aptitude. One child selected the picture of an eel to be the third amphibian. When asked about her selection she explained that she had seen Flipper, the dolphin on T.V., walk on his tail as he talked. Thus he would also be able to walk on land, and since this eel had the same shape as the dolphin, the eel could also walk on land. The child had the correct process but the wrong facts.

Since evidence from this study showed that both of the adults credited some responses as predominantly correct if the problem-solving process was correct but the answer wrong, Wertsch's categories would be more accurate if the classifications accounted for error of process as different from error of fact. More specifically, the stages suggested by Wertsch appeared valid according to the one task used in his underlying research, but the tutoring tasks of this study involved cognitive demands of increasing difficulty. Not surprisingly a more sensitive scale appears needed to accurately describe each child's degree of independence in relation to each different cognitive demand. Succinctly the interaction between task demands and independent problem-solving needs better description than Wertsch's stages provide.

In general the Wood et al. and Wertsch descriptors were adequate to identify important aspects of each child's performance during the tutoring sessions. Other important information was identified during these sessions which fell outside the focus of these descriptors. Of the two, the Wood model as revised was more adequate because it had more descriptors, differentiated between purpose and strategy and had more sensitivity to individual variations. Nonetheless it only captured the statements of the adult. These statements were viewed predominantly as responses to the child, and allowed inferences regarding the child's performance.

During the tutoring process the children provided other information of significance to the examiner such as statements of rationale, tangential comments regarding personal experience, and questions for clarification or information. These also were not captured within the Wertsch stages or reflected in most of the Wood et al. functions. These other factors, not categorized by Wood et al. and Wertsch, also contributed to judgments of communicative competence. Thus, the overall limitation of both sets of descriptors was their focus on the child as the responder to adult statements and their lack of descriptors for the child as the initiator of topics, the approximator of accuracy and the investigator of all things.

Discussion of Statement V

Other factors contributing to judgment of communicative competence relate to levels of social and cognitive complexity. Cognitive competence is more closely associated with communicative competence than is social competence.

In this statement the terms "social", "cognitive" and "complexity" require description. Both social and cognitive are general terms referring to the topics of study within social and cognitive psychology respectively. Although these are not mutually exclusive topic areas, "social" generally refers to the individual's interaction with other individuals and the socially derived culture. In contrast "cognitive" refers more directly to the world of ideas and thought, the understanding and mental reasoning involved in learning and problem solving. "Complexity", which can describe both social and cognitive development, has both quantitative and qualitative implications. This term refers to both the scope of a child's understanding, the quantity of mastery, and also to the integration of these understandings in a functional hierarchy. In the visual analogies task, for example, the children needed to know what each picture represented in the real world but also how these were organized under a specific class of items e.g. cow and horse could both be farm animals.

The variations of the children's performance across levels of social and cognitive complexity were easily identified by the teacher and examiner and remarked upon as important information. Some children were able to complete tasks of greater cognitive difficulty in formal testing and classroom activities than were others. Similarly the more competent children were able to understand instructions and learn new material despite instruction in large groups. The less competent required individualized instruction and continuous support from an adult to be successful.

An interesting aspect of this study was the relationship of communicative competence to social and cognitive development. At times the relationship between communicative and cognitive development was so close that the division between them was not identifiable. Only when a discrepancy between communication and cognition was conjectured did the two become discussed separately. This occurred in relation to the quiet children such as Dirk, Ralph and Anita when the teacher inferred that they understood much more than they actually talked about, but she was unsure just how much each actually knew.

In contrast, social development seemed separable from communicative competence. The two were parallel for some of the capable children e.g. Amelia and Adam were social leaders and verbal responders, and also for some of the less capable e.g. Damon and Anita were ineffectual socially and verbally. However, contrasts were evident within both the more capable and less capable groups. For example, Rory was an amiable child who played cooperatively at a level that seemed to exceed his level of communicative development. Bryan, conversely, displayed markedly immature social behaviors but communicated these very accurately. Thus, judgments of communicative competence related to levels of competence in cognitive and social areas but were more closely associated, and at times fused with, judgments of cognitive competence.

Discussion of Statement VI

Measures of semantics, syntax, morphology and phonology do not account directly for judgments of competence but appear to contribute indirectly.

This entire project began initially because the researcher was concerned about the discrepancy between standardized measures of language and the subjective judgments of the professionals interacting with some children. This discrepancy became evident here; measures of semantics, syntax, morphology and phonology did not directly account for judgments of competence.

As shown in the tables in Chapter Four, none of the linguistic components tested related directly to the teacher's assessment of a child's communicative competence. The closest correspondence was between the scores on the Boehm Test of Basic Concepts and teacher ranking. This is logical since the linguistic area of semantics is inherently related to conceptual development "because of the central role of word meaning in the development of cognition". Furthermore, judgments regarding levels of conceptual development often paralleled judgments of communicative competence.

The use of a standardized language analysis protocol, the Lingquest micro-computer program, provided information which was related to the judgment of competency but did not demonstrate a direct relationship. This can be accounted for by Cole and Griffin's (1983) explanation that there is a difference between basic skills and basic activities. Although basic communicative activities typically incorporate basic speech skills, they use these skills in varying combinations for a range of purposes and augment them with supra-segmental, kinesic, and contextual information. Thus the relationship between skill and activity is positive but variable.

The tests used in this study included components of semantics, syntax and morphology; neither phonology nor pragmatics were assessed. The fact that the one child with delayed phonological development was not rated differently for communicative competence than her twin with normal articulation suggests that delayed phonological development did not contribute to lowered judgment of communicative competence. Conversely, a halo effect from one twin's ability to the other could also be conjectured.

It would be premature to disregard linguistically based assessment procedures on the basis of this study, because the emphasis on standardized instruments precluded the use of some evaluation techniques. For example, the newer area of language study, pragmatics, was not addressed directly in testing due to the standardized focus of the testing segment. Many of the inter-active components referred to by Wood et al. and Wertsch as well as specific behaviors to be discussed as symbols later in this chapter have a close logical relationship to open-ended observations of pragmatic language use as described in Prutting and Kirchner's (1983) protocol. Application of such analysis to this evidence would be a promising focus for future study.

THE PROCESS OF INTER-PERSONAL JUDGMENT CONTRIBUTES TO THE RESULTANT APPRAISAL OF COMPETENCE

The interaction between the child and adult includes a wide range of critical moments and behaviors which serve as symbols to the adult. These are described accordingly by Mehan (1983) citing Rosch et al. (1976, p. 430). "The interactional perspective maintains that perceptual structure exists neither in the head of the perceiver, nor in the object of perception. Instead, basic object groupings result from 'an interaction between the potential structure provided by the world and the particular emphasis and state of knowledge of the people who do the categorizing'" (p. 315). In this instance, specific activities and behaviors had salience for the adult forming judgments regarding the communicative competence of a child.

Discussion of Statement VII

Competence judgments develop according to principles of attribution and categorization as integrated by Feldman.

Feldman (1981), applying the principles of Rosch to attribution theory, explained that when critical behaviors become categorized, additional characteristics are also attributed to the child as the direct result of the category placement. In such cases judges may be unable to recall whether certain behaviors actually occurred. In this study, the adults could have inferred that Rory would have difficulty tying shoelaces and that Adam would enjoy library books but be uncertain whether they had actually seen such an occurrence or whether they had predicted it on the basis of their understanding, i.e. categorization, of the child.

Although it was theoretically possible to infer rather complex behavior patterns for individuals as the result of attribution decisions, in some notable situations this did not occur. The teacher did not think she could predict what some children would do in certain contexts. This suggests that the child's category did not allow prediction in that sphere or that it could predict a range of mutually exclusive outcomes. An alternate explanation was that the teacher did not wish to pre-judge failure, and thus wished to ignore the final level of achievement the category implied.

In one case, shifting across categories occurred when Lance demonstrated more difficulty with pre-academic activities than the teacher had anticipated. This reclassification was the result of the process described by Feldman (1981) as shifting from automatic to controlled categorization.

> A controlled categorization process is triggered when incoming information reaches some hypothetical threshold of discrepancy. That is, when the observed behavior of the individual in question departs sufficiently from that expected on the basis of an initial categorization, a problem-solving recategorization process must be brought into play. (p. 132)

Lance's early success with routines and cooperative play suggested that he might be among the highly achieving. His average performance as pre-academic activities were introduced exceeded the teacher's "threshold of discrepancy", his performance was reconsidered, and he was reclassified within the average group of achievers.

The teacher and examiner came to slightly different judgments regarding two children, Anita and Dirk. This probably resulted from each adult having somewhat different information, e.g. the examiner had standardized test data, the teacher did not. However, differences in the sequence of obtaining information and different symbolic weighting of the same information were also likely to have contributed to the variance (Mehan, 1983).

Characteristics of classification were present among the children as evidenced by their adaptations in language and demands from child to child. During play children proceeded without the involvement of Jeanine and Rory, appearing to assume that these children's non-involvement was due to inability rather than unwillingness and thus it was acceptable to proceed as if they were involved. This may have been a form of scaffolding of play by peers in that the senior partner provided more structure to allow the junior partner to participate, even to the extent of playing both roles while the less advanced child observed.

Discussion of Statement VIII

Judgments of competence involve the comparison of a child's performance to a subjective norm related to the demands of the task.

The judgments of the examiner and teacher suggested two group reference points and one individual reference point. The performance of a child could be compared to age peers, to a sub-group, e.g. children with comparable experience, or to the expectations for that specific child. Furthermore, the selection of a comparable sub-group also attributed causation to the performance. Thus, not only was Anita compared to other children without extensive experience, but also the lack of extensive experience was seen as the reason for limitations in her performance.

In addition, the nature of the task influenced the judgment credited to the child. All activities in the kindergarten were, to some degree, planned. Among these, some were opportunities for children to explore materials and interactions with a minimum of teacher direction. Thus children were allowed to develop play themes, block structures and imaginative sequences with the teacher functioning in a support role. In contrast, some activities involved teacher-directed instruction in activities the children would be unable to complete independently. In the first instance competence would be judged according to whether the child could pursue activities with peers with minimal teacher involvement. In the second instance competence would be judged by whether the child could attend to the teacher's instructions and follow directions accurately.

The nature of the task and the inferred norms for comparable children on this task provided the basis of comparison for judgments. Greenfield (1983) refers to this balance as "constrained by cognitive development on the side of the organism and by task structure on the side of the environment" (p. 120). Thus, judgment of competence rests on the success of the person in relation to a task of specific difficulty.

Discussion of Statement IX

Components contribute to judgment of competence in varying ways, e.g. some derive their power from their symbolic value.

Additive processes do not account for judgments of competence without information regarding relative weighting for the various activities children perform. It remains unknown whether answering a question correctly is equal to demonstrating leadership in terms of the impact each makes toward a judgment of competence. It is clear, however, that different components contribute to judgment of competence in varying ways. Some derive their impact from the event itself; others are powerful due to their symbolic value.

The activity of a child provides both explicit and implicit information. Furthermore, the implicit information includes several levels of inference. A good example from this study was Lance's familiarity with nursery rhymes. At an explicit level it was clear that Lance could repeat some nursery rhymes. At one level of inference, this showed that Lance was capable of learning nursery rhymes. At another level of inference, however, it also suggested that Lance had parents who taught him the traditional rituals and routines of childhood. Thus Lance's ability to repeat a nursery rhyme signified his parent's deliberate fostering of his experiences.

A second example was the teacher's explanation that the ability to use scissors often indicated a child who would be successful in the kindergarten program. This was not based upon the importance of cutting to kindergarten, but rather on proficient cutting serving as a symbol of pre-school experience paired with sufficiently developed fine motor coordination.

A third example was the researcher's interest in Dirk's meta-language when describing macaroni and noodles as members of the same group. This appeared to be significant in terms of Dirk's readiness for the content of school. As Olson (1982) summarizes, "what schooling provides is not just an 'increased experience with language' although that is part of it, but rather a meta-language for referring to language. It is the cognitive uses of this meta-language which is distinctive to schooling" (p. 76). Thus, Dirk's statement, "They are two parts of the same group" symbolized his use of meta-language, a characteristic of schooling.

Given the symbolic value of child activities, and the inferences adults draw from these activities, the judgment which the adult reaches about each child's communicative competence rests on both the explicit and implicit information arising in the interaction. Both the child's behavior and the adult's resultant interpretation are complex. Mehan (1983) explained this complexity:

> Instead of attending to behavior in isolation, teachers are attending to action in context, which includes the student, the task, the lesson, and the situation in which the actions transpire. That is to say, the teacher is not interpreting or perceiving discrete or finite pieces of information. (p. 313)

Conclusions

Communicative competence cannot be viewed simplistically. It is the result of complex cognitive and social processes and the product of interactional dynamics.

The child is the center of the process -- the child enters the school as a communicator, displays symbols of communicative ability, and acquires more symbols of ability to display. The teacher, charged with the responsibility of opening "gates" for each child to facilitate learning, observes the performance of the child and weighs the symbols that are displayed. From these the teacher infers a level of communicative competence and opens learning "gates" that correspond to the competence that has been perceived.

Communicative competence is not the additive product of linguistic components but the social product of listener judgment based on contextual demands and normative expectations. It is the product of the dynamic selection from among a potentially infinite number of possible language combinations. Thus speech/language skills provide the critical repertoire, but competence depends upon selecting and combining these components in dynamic processes that yield listener impressions of competence.

On the basis of these findings, this paper proposes the following definition of communicative competence:

COMMUNICATIVE COMPETENCE IS THE ABILITY OF A PERSON TO NEGOTIATE SHARED MEANING AT AN APPROPRIATE LEVEL OF COGNITIVE AND SOCIAL COMPLEXITY. FURTHERMORE, THE JUDGMENT OF COMPETENCE IS A SOCIAL JUDGMENT WHICH FOLLOWS THE PRINCIPLES OF CLASSIFICATION AND ATTRIBUTION AND RESTS UPON PERCEPTIONS OF COMMUNICATIVE CONTEXT AND SUBJECTIVE NORMATIVE EXPECTATIONS.

In many ways the topic has now completed a full circle. It began in Chapter Two with the principles of language as the product of social interaction. Children acquire thought and language in the social context; children acquire language in the social milieu.

At issue in this research was "What constitutes communicative competence?" The ultimate answer is that competence is a social judgment which occurs as part of the acquisition interaction. The adult observes the child's proficiency and senses the adult's own responses. Thus, children also demonstrate their competence in language in the social milieu. Both acquisition of language and judgment of communicative competence are sociogenetic. Social interaction is the alpha and omega of communicative competence.

This definition augments the contributions from Hymes cited earlier by increasing the emphasis on the role of the judge. The explanation offered here rests not only on what the child displays as communicative competence but also on the subjective norms and contextual interpretations contributed to the judgment process by the adult.

Significance of Conclusions

The conclusions reported in this chapter represent an advancement in the understanding of the question of this study: "What constitutes communicative competence in kindergarten children?" These advances apply both to the theoretical positions from which each of the three approaches arose and to the integration across these approaches.

In many ways the results of this research contribute to Weimann's (1980) position that a dual cognitive/behavioral approach should be taken in studying communicative competence, "one that takes account of developmental processes as precursors to behavioral choices upon which attributions of cognitive competence are made" (p. 188). It also fulfills Prutting's (1982) prediction that

> at some point it will be necessary to compare clinical profiles (performance on tests, clinician constructed tasks, and evaluation of language samples) with societal profiles (judgements of appropriateness of language use). It is likely that

> the clinical profile will yield different information than the societal profile. (p. 129)

In integrating the sociogenetic theory of language development, standardized measures of language, tutoring dyads and the joining of attribution theory with theories of categorization, a trans-molecular understanding has been attained. This understanding foregrounds the activity of the child as the site of both language acquisition and the demonstration of competence.

Clearly the result of foregrounding activity is the de-emphasis of individual development, adult directives, specific contexts and demands of materials. Thus the theoretical perspectives which emphasize each of these also become background information, adding understanding to a culminating focus, activity. The implications which result from these conclusions are detailed in the following chapter.

In the final analysis these conclusions are significant because they contribute to a better understanding of the "real world" of children learning.

Summary of Chapter Six

This chapter has presented nine statements which serve as conclusions from this study. The statements clustered under three headings: 1) competence is judged relative to the context: the information it provides and the goals it implies, 2) competence is inferred from performance, and 3) the process of interpersonal judgment contributes to the resultant appraisal of competence. These clusters of statements were developed into a culminating definition: Communicative competence is the ability of a person to negotiate shared meaning at an appropriate level of cognitive and social complexity. Furthermore, the judgment of competence is a social judgment which follows the principles of classification and attribution and rests upon perceptions of communicative context and subjective normative expectations.

CHAPTER SEVEN: Implications

Introduction

This study began with the question: "What constitutes communicative competence in kindergarten?" It concluded with the following definition:

> Communicative competence is the ability of a person to negotiate shared meaning at an appropriate level of cognitive and social complexity. Furthermore, the judgment of competence is a social judgment, which follows the principles of classification and attribution and rests upon perceptions of communicative context and internalized normative expectations.

Answers to one set of complex questions lead to questions of greater sophistication; answers to questions spawned in the "real world" have application to that world. This chapter describes the applications of these conclusions and the new questions which they produce.

This chapter extends the information and conclusions of the previous chapters, exploring the implications of this information. First a fundamental maxim arising from this evidence is stated; then reorganization of thought and the skeleton of a new model are described. These are followed by considerations of commonality and transferability. This dissertation concludes, as it began, with considerations of measurement, intervention and consultation with teachers.

The Fundamental Maxim

One conclusion, which supercedes all others, has important implications for subsequent research. Stated as a simple credo, it is: Foreground Social Interaction. The perspective afforded by moving to a mid-point in the analysis hierarchy - above the molecular emphasis and below the global focus - facilitates ecologically valid interpretation of information. All criteria of competence arose from social interaction; most evidence cited by the teacher involved complex social and cognitive activities. Consequently, a prime implication from this study is that subsequent research and application focus on social interaction. All other implications are subsidiary to this.

Reorganization of Thought

The premise that thought becomes qualitatively different through reorganization is central to the writings of Vygotsky, Wertsch, Bruner, and Cazden. The adult-child tutoring aspect reported here broached this topic but had limitations to its success. More importantly, however, this study suggested a methodology suitable for further investigation.

As a result of using the Picture Association sub-test of the Hiskey-Nebraska, the adult-child tutoring tasks increased in difficulty. The test was administered at both the beginning and end of the study; each time standardized procedures were used first, testing with coaching second. However, the results were constrained in two ways: 1) by the test's artificial ceiling during coaching, and 2) by the repetition of the tests within a short time as opposed to administering alternate forms. Correcting these limitations promises more elucidating results.

Since a challenge in studying language development is encapsulating the reorganization of thought, the picture analogies tasks with coaching promise to allow such study. Because the materials increased in cognitive difficulty across items, some children demonstrated variations across the cognitive demands of the tasks. Unfortunately, the more verbally capable children did not encounter items which were sufficiently challenging to display this variation. Nonetheless, this set of items which became sequentially more difficult provided richer evidence than the single activity focus reported in related literature.

The other major weakness of the picture analogies materials was that there was only one form. The use of the same materials in two different testing periods with only eight weeks between administrations was inadequate for capturing change over time. An equivalent but different form would have provided more valid evidence.

The conclusion, therefore, is that picture analogy materials of increasing difficulty show promise for research regarding the reorganization of thought as the result of tutoring. To be effective, however, the materials must include additional items of greater difficulty, and several equivalent but different forms of the activities must be available.

Identifying Relationships Between Competencies

The use of the term competencies to describe complex clusters of developmental abilities serves to define and contrast these clusters, but fails to capture their intricacies. Among the intricacies are the indistinct boundaries, the overlap among competencies that challenge specification.

The focus of this research was communicative competence. However, the relationship of this to other clusters of abilities, i.e. other competencies, and to specific abilities, i.e. skills, needs more definitive specification. These relationships can be considered to be horizontal relationships, such as connections to social and conceptual competencies, and vertical relationships, such as the association to noun-verb agreement, irregular plurals and other language skills.

Horizontal Relationships

In this research, communicative and cognitive competence merged recurrently. Although the two were discussed contrastively in understanding the quiet children, they were inseparable in the adults' views of other children. This fusion was consistent with the unification of thought and language in child development, but the separability of this union requires additional exploration.

Similarly the relationship between communicative and social competence requires study. For most children, social and communicative abilities were parallel; competence in one paralleled competence in the other. In some children, especially Rory and Bryan, this was not evident. Discriminating between social and cognitive functions of language may be important in an applied sense as more emphasis is placed on pragmatic language skills, language in the social context. Given the contrasts in this study, it may be essential to determine the difference between heuristic language function, language to learn, and other interpersonal language functions. According to the social context, each may impact differently on perceptions of communicative competence.

Vertical Relationships

The Relationship Between Skill and Performance. Another interesting question is the relationship between specific linguistic usage and general communicative competence. The evidence in this kindergarten showed a positive but indirect relationship. Given the prevalence of skill-related testing in school, however, it remains important to understand in what way language skills correspond to communicative competence in the kindergarten. Two alternative actions could also be considered: 1) improve the tests, and 2) measure amid social interaction. First, the lack of correspondence between test scores and teacher judgment may be partially accounted for by the psychometric weaknesses of the language tests. Second, new assessment procedures situated in social interaction could be developed; this possibility will be discussed later in this chapter.

Assuming that language skills are indeed different from communicative competence, one issue which is critical to better understanding is the child's application of previous learning in appropriate new contexts. More specifically, "What are the causes for the discrepancy between a child's language mastery per se and his/her utilization of these language skills within specific contextual demands? How does a child identify appropriate contexts in which to employ previously learned language abilities." The issues here depend on understanding both human learning, and the components of language.

The Skeleton of a Model

One of the promising statements among the conclusions of this dissertation was the delineation of three components in the school's perception of a child: development, activity and learning. Predominant within this model was activity, which was foregrounded as the source of all evidence regarding both development and learning. This is a promising model for describing subsequent evidence arising from the classroom context. It provides the contextual "lense" much as the teacher's perceptions did in the analysis of evidence in this research.

Furthermore, this model allows attention to the critical process of inference. Social interaction allows the teacher to infer levels of development and processes of learning for each child. These two, development and learning, are considered inter-related; however, since the role of the school is to facilitate learning, the two are conceptually separate. Use of this three component model with activity foregrounded is promising for the interpretation of in-school evidence.

The Issue of Commonality and Transferability

Cross-context Constancy

The teacher in this research was chosen because she might "know" what constituted communicative competence in kindergarten; she had the theoretical background and experience in the specific context which promised well developed subjective norms. The evidence from this study confirmed this expectation.

One teacher, however well chosen, cannot be viewed as all teachers. The commonality of the findings of this study across teachers, across schools and across kindergarten classes is the next logical extension of this research. Broadening the population studied would undoubtedly lead to some revision of the conclusions reported here. Once revised to account for most kindergartens, a study of these principles of communicative competence across age groups and non-school contexts could occur. Conversely, an analysis of specific components within teacher responses might prove valuable.

At each level of generalization additional relevant literature would be required, but the etic to emic to etic sequence could be replicated. For example, all information about the language of the school would be relevant in a replication across grade levels; information about communication in other contexts would be relevant as replication moves beyond the school.

Characteristics of Symbols

Intra-personal Stability. One concern regarding constancy across contexts is the stability of communicative symbols interpersonally and intra-personally. There is no doubt that symbols are tempered with other factors of judgment, e.g. a child who knows nursery rhymes does not automatically have good parents. However, symbols appear to have some stability in their application across children. Knowing nursery rhymes was not symbolic only in relation to Lance; scissor use did not apply only to the twins. These symbols were used both to categorize an individual and allow comparisons across individuals. Thus, they had an intra-teacher stability.

Interpersonal Similarity. These symbols also had an interpersonal use, and implied understanding across adults. When the teacher in this study used the phrase "They are the kind of parents who ______" she demonstrated the expectation that her symbol was shared by the other adult. Given the cultural basis of many schools, the shared nature of some symbols across teachers remains extremely likely. This merits further study.

Equivalencies. Furthermore, symbolic equivalencies merit greater understanding. Tying shoelaces may be generally equivalent to cutting with scissors. Being able to recite one's full name, address and phone number might be generally equivalent to knowing nursery rhymes. The judgment of competence rests not only on specific performances and patterns of performance, but also on extensive variation across and within these patterns. Resisting the analysis of competence into components, focus for study must be the synthesis of an infinite variety of components occurring in shifting combinations.

Self-access. Another question is "How important is it that teachers be able to access their own symbol systems?" When social change requires attitude change, can this be achieved by teachers changing their categories to which the symbols relate? This will be discussed further in the following section.

Implications for Judgment

In this study the subjective judgment of the teacher was valued and used as a perspective in interpretation. There was no evidence to suggest that this teacher was unique in her judgments or that her perception systematically distorted the evidence. It is conceivable, however, that some teacher's subjective norms may be inappropriate. In such instances, how can subjective norms be altered?

The theoretical perspectives of this research suggest that a change in subjective norm might result from changes in the attributes inferred from specific prototypes. A hypothetical example might be the attributes inferred toward a "day care child". The type of family accessing day care and the quality of day care available have changed markedly in the last ten years; teachers who once attributed low levels of development to "day care children" may now perceive them as having valuable, school-relevant training. The prototype "day care child" remains, but the inference on the basis of changed information is different.

Another change in subjective norms might result from a shift in the relative weights assigned to factors which contribute to forming judgments. A child presents the teacher with extensive evidence about his/her achievement. Some of this evidence is imbued with greater significance by the teacher; some is not. A child who functions well in all things except name copying, for example, might be seen as potentially learning disabled if the teacher attaches great importance and prognostic power to name copying. However, if convinced that difficulty with name copying is completely normal until after age seven, the teacher's relative weighting of that factor would be reduced and the resultant appraisal might shift to "normal".

These are interesting theoretical questions, but they also have practical implications. For example, it might be possible to facilitate the development of ecologically valid norms in a new teacher, help a teacher moving to a new community adapt his/her existing norms, or assure that a teacher with interfering prejudices is capable of valid assessment of children. The importance of these possibilities rests upon these assumptions: 1) the classification of other people is a natural response by people organizing the phenomena of their lived reality - it is inevitable, 2) valid subjective norms increase the teacher's ability as "gatekeeper" in facilitating a child's learning - it is functional, and 3) teacher judgment provides the critical link in interpreting child performance in context - it is important.

Implications for Measurement and Intervention

Standardized Measurement

The question of this study, "What constitutes communicative competence in kindergarten children?" emerged from the researcher's perception of a discrepancy between language test scores of kindergarten children and their "real world" functioning. Consequently, the conclusions of this study have implications for the context from which the question emerged. Either language tests do not assess what the teacher observes or they do not test what the teacher considers important. Nevertheless there is an unspecified overlap between test scores and teacher judgment. Additional research will be required to better understand the contrast between the two assessment perspectives.

A logical recommendation from this research is that measurement be situated in contextually relevant activity. Herein is a major dilemma. To date most procedures acceptable on the basis of reliability and external validity remain reductionistic and fail to include the rich interpretive information from the interaction. This is one of the major frustrations of research at the activity level -- and one of the greatest challenges.

A recent article by well-respected researchers is a prime illustration of the need for measurement which considers interaction (Cole & Dale, 1986). The intent of the study was to compare the efficacy of two intervention approaches: 1) direct language intervention using elicited imitation, and 2) interactive language facilitation, which incorporates "repeated exposure to the specific forms to be learned in a context where the child can associate the utterance with the event or stimuli in the environment" (p. 207). The post-test measures were: 1) syntactic (computation of mean length utterance and use of Lee's (1974) developmental sentence scoring), and 2) pragmatic (conversational acts and topic continuation). All of these are well documented post-treatment evaluation techniques; however, none captured the social interaction context addressed in this dissertation. Comparing direct and interactive intervention without measuring interactive outcomes hobbles the conclusions of Cole's and Dale's study.

The Measurement Dilemma

This study by Cole and Dale typifies an important dilemma. Institutions which require evidence of accountability mandate standardized measurement. Standardized measurement of communicative competence as defined here does not exist. This frustration also has specific implications for remediation since one important consideration from the evidence reported here is situating intervention amid interaction. However, changes in remediation processes require justification acceptable to the professional community, and conclusions of this type require an acceptable instrument to measure differences in performance.

Although measurement in language has typically been quantitative, qualitative measures would be acceptable once their reliability and validity had been established. Qualitative measures allow richer less reductionistic interpretation and provide a more promising solution to this challenge. A measurement strategy which captures the nuances of language during social interaction but also meets scholarly demands for reliability and validity will be the critical requisite for subsequent research. Such an instrument, which currently evades specification, requires development.

The Question of the Adult as Synthesizer

A major difficulty in the application of standardized procedures was the reductionism they forced; much of the evidence available to the examiner was not admitted for consideration. The discrepancy between what the examiner "knew" from the child's performance and the segment of "knowing" the test sampled has been described before. However, weaknesses are easier to identify than solutions.

One promising type of analysis was illustrated by the descriptors of adult roles adapted from Wood, Bruner and Ross (1976). At issue, however, is whether the analysis of the adult's responses to the child causes a distortion or an integration of the evidence. That is, does relying on the adult's perception preclude accuracy or does it provide a rich, contextually valid description. The agreement this researcher has experienced with other professionals in viewing a child suggests that a more integrated description of children's responses to controlled activities can be developed, and that such a technique can be both valid and reliable.

Situating measurement in interaction should provide the opportunity to reflect the dynamic negotiation of shared meaning. It should provide the opportunity to understand and objectify this inter-action, especially as exemplified in the tutoring process between a child and an adult. This perspective should also allow the recognition of the importance of context, its implication of goals and its provision of evidence for judgment.

Remediation with Ecological Validity

One of the underlying assumptions of language remediation in schools is that an improvement in language ability will increase the probability of success in academic areas. This does occur, but it is not certain. This lack of a direct predictable relationship between language improvement and academic achievement is logically linked to the contrast in this study between language skill and communicative competence. It is necessary to increase our understanding of this critical relationship so that remediation will maximize the child's effectiveness in the school context.

Utilization in context involves more than the theoretical links between skill and performance, it also depends on the child's operational ability to select from an existing repertoire of skills and apply these skills in a novel context. Furthermore, abilities need to be combined in unique dynamic patterns. Thus, as well as understanding the relationship between skill and performance, we also need to know in what way a child selects a specific skill for application. The process of selecting from one's communicative repertoire is an equally challenging topic for further consideration.

Assuming that skills are learned in the context of activity, the failure of a skill to appear in another context may be the result of limited learning or of a limited ability to apply what is learned. We need to understand more fully the cross-context application of learning.

Implications for Consulting: The Teacher's Perspective

Activity as Indicator

The first day in the classroom this researcher learned a critical lesson: the teacher used activity as a direct indicator of language competence. More exactly, the teacher did not listen to spontaneous speech for noun-verb agreement, length of utterance or irregular plurals; the teacher listened to oral language as an indicator of current development and situational learning. She foregrounded activity; specific skills were ancillary.

The consultant discussing a child with a teacher may misinterpret information if the primacy of the interactive perspective is minimized. A teacher who says "the other children don't understand him" is saying precisely that. The consultant may analyze the statement to mean: the child has limited vocabulary, unintelligible articulation. Making this interpretation may significantly alter the meaning of the statement. The direct relationship of language skills to language performance is poorly understood; the sum of language skills as we typically describe them does not equal language competence. The teacher meant specifically what was said; reducing the description to its linguistic components loses the contextual significance of the difficulty.

Inference from Symbols

Due to the contextual significance, the teacher's statement "the other children don't understand him" could not be accurately reduced to a statement of language-skills. This does not mean that all the teacher's statements should be interpreted literally. Many teacher statements need to be understood for their implied meaning.

Not only did the teacher foreground activity, but she placed greater weighting on some occurrences than on others. Some aspects of children's performances, e.g. use of scissors and knowing nursery rhymes, had importance beyond the actual value of the behavior. These occurrences allowed inference of additional information, they were symbols of developmental status and indicators of maturity.

Often inferred meanings could be understood easily by assuming the preface "He's the kind of child who ...". This prompts the listener to infer an entire pattern of behavior from some prototypical characteristics. Consequently, consultants talking to teachers may be well advised to consider whether descriptive statements are actually prototypical statements, which require broader interpretation.

The implication from this study in understanding teachers' perspectives is to avoid reductionism. Complex activities should be considered as complex activities with all the variations and interactions such consideration entails. Some serve as indicators of even broader patterns of behavior. As long as the relationship between specific skill analyses and the complexities of social interaction remain unknown, the level of description should be at the level of interpretation: activity.

Summary of Chapter Seven

When knowledge is gained regarding complex questions, two types of implications occur: application and research. In this study the question arose from the "real world", and the application of results correspondingly occurs in the "real world" which spawned the question. Similarly the conclusions from this research address questions from complex issues. More questions, now somewhat more sophisticated, remain.

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